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INVESTIGATION OF THE FINANCIAL
CONDITION OF THE UNITED STATES

JOINT AND SUPPLEMENTAL COMMENTS

OF THE

PRESIDENTS OF THE FEDERAL RESERVE BANKS
IN RESPONSE TO THE QUESTIONNAIRE

OF THE

*U.S. Congress.
Senate.*

COMMITTEE ON FINANCE.

UNITED STATES SENATE

EIGHTY-FIFTH CONGRESS

SECOND SESSION

CHAPTER 1

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CONDITION OF THE UNITED STATES

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PRESIDENT OF THE FEDERAL RESERVE BANK
IN RESPONSE TO THE QUESTIONNAIRE

COMMITTEE ON FINANCE

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CHAPTER I



Printed for the use of the Committee on Finance

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INTRODUCTION

The Senate Finance Committee in connection with its investigation of the financial condition of the United States mailed a questionnaire to 104 individuals engaged in various phases of our economic life. Among this 104 were the 12 presidents of the Federal Reserve banks.

The joint comments of the 12 Federal Reserve bank presidents together with their individual supplemental views and comments are included in this chapter.

This is the first of a series of committee prints that will be published. In this manner the verbatim responses to the questionnaire will be made available without delay. Subsequent chapters will include the replies of corporation officials, economists, professors, and the heads of business and trade associations.

The Committee on Finance is deeply appreciative of those who responded to the questionnaire. Their voluntary efforts in helping the committee try to find some of the answers to the perplexing economic problems facing the Nation is a patriotic gesture of significant importance.

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Vol. 1

INTRODUCTION

The purpose of this book is to provide a comprehensive introduction to the study of the history of the United States. It is designed for students who are new to the field and who need a solid foundation in the basic facts and concepts of American history. The book covers the period from the early years of the nation to the present, with a special emphasis on the years 1776 to 1876. It is written in a clear and concise style, and it includes many illustrations and maps to help the reader understand the events and places discussed. The book is divided into two main parts: the first part covers the years 1776 to 1876, and the second part covers the years 1876 to the present. Each part is further divided into chapters, and each chapter is written by a different author. This allows the reader to see the different perspectives of various historians on the same events. The book is intended to be a useful resource for students and teachers alike, and it is hoped that it will help to make the study of American history more interesting and informative.

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SUPPLEMENTAL COMMENTS OF INDIVIDUAL PRESIDENTS OF THE FEDERAL RESERVE BANKS IN RESPONSE TO THE QUES- TIONNAIRE OF THE SENATE FINANCE COMMITTEE

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LETTER REQUEST FROM CHAIRMAN, SENATE FINANCE COMMITTEE

UNITED STATES SENATE,
COMMITTEE ON FINANCE,

February 17, 1958.

DEAR MR. BLANK: As you know the Senate Finance Committee has undertaken an inquiry entitled "Investigation of the Financial Condition of the United States." We have had testimony from three witnesses so far: Former Secretary of the Treasury, George M. Humphrey; former Under Secretary of the Treasury, W. Randolph Burgess; and Federal Reserve Board Chairman William McChesney Martin, Jr. Under separate cover I am sending to you a copy of these hearings.

I am anxious that the Finance Committee have available for study and guidance your thoughts and opinions about vital matters affecting our economy. In preparing your reply it is suggested that you use the attached list of questions merely as a guide. Please feel free to answer part or all of the questions and make any further comments you deem desirable or appropriate.

For your information I am also addressing a similar letter to the individuals shown on the attached list. It is my present intention to recommend to the Finance Committee that the answers to this letter be compiled into a compendium for use by the Members of Congress.

We must have a strong and sound economy to undergird our continued progress as a free nation. Your cooperation in answering these questions and adding your further comments will be a valuable contribution. I will appreciate your getting your answers and comments to me by April 1, 1958, if at all possible. In the event you will not be able to furnish your answers by that date, it would be most helpful if you would kindly indicate an approximate date when you could conveniently furnish your answers and comments.

Cordially,

HARRY F. BYRD, *Chairman.*

1. Give a definition in your own words of deflation and inflation.
2. Explain how you believe the economy of the United States can best avoid either inflation or deflation. If you think present laws should be changed or new laws are required, then make specific suggestions.
3. Comment generally on the monetary control policies of the Federal Reserve System as exercised within the following years: 1942 to 1957. (You may wish to divide the period into two parts, 1942-50 prior to the accord, and 1951-57.)
4. Beginning in August 1956 there was an increase in the Consumer Price Index each month through September 1957, thereby causing a

decline in the value of the dollar. What factors contributed most to this decline in the value of the dollar?

5. What effect does the management of the current public debt have upon the national credit structure and the economy of the United States?

6. (a) Discuss in their relationship to one another and according to your judgment of their relative importance, the following three objectives of economic policies in the United States:

1. Price stability.
2. Stability of production, demand, and employment.
3. Economic growth in production, demand, and employment.

(b) With respect to these three objectives, discuss and appraise the significance of what you consider to be the most important trends since World War II—during the most recent 2 or 3 years—and especially during 1957.

7. Give your opinion of the effect on our economy of current Federal, State, and local government spending.

8. Give your opinion of the effect on our economy of current Federal, State, and local taxation.

9. Will you distinguish between fiscal policy (embracing expenditures, taxes, and debt) and monetary and credit policy, and then relate them, one to the other. Please discuss these policies, stating how they may be used to restrain inflationary trends and otherwise aid in preserving a stable economy.

10. (a) Comment generally on the adequacy or inadequacy of the United States monetary system. (For the purpose of this question consider that the monetary system includes bank deposits and bank credit.) Also please furnish your ideas for the correction of any inadequacies that you feel now exist in our monetary system.

(b) Comment briefly on the adequacy or inadequacy of the United States fiscal system.

11. (a) What is the explanation of the seeming paradox that at times inflation and unemployment exist side by side in our economy?

(b) Shall we accept, as some have suggested, a gradual inflationary trend as desirable (or necessary) to achieve and maintain full employment goals?

12. To what extent and in what way do you believe that the growth of private debt in recent years may have become a threat to the stability and vitality of the American economy?

13. Considering the financial condition of the United States, at what point, if any, in terms of unemployment, production, and consumer demand, should the Federal Government move in major ways, such as a tax cut and/or large increases in public works, to counteract a downturn in the economy?

14. How much of a factor in your opinion has deficit spending by the Federal Government since the end of World War II been in contributing to or producing inflation?

15. Can full employment goals be attained while maintaining a dollar that has relative stable purchasing power?

16. Are escalator provisions in wage or other contracts compatible with achieving economic stability?

17. List and briefly discuss what you consider the causes of the present recession, and what should be done to terminate it.

INVESTIGATION OF THE FINANCIAL CONDITION OF THE UNITED STATES

JOINT COMMENTS IN RESPONSE TO QUESTIONNAIRE OF THE SENATE FINANCE COMMITTEE

FOREWORD

The discussion that follows is intended to cover broadly the questions posed in the questionnaire that accompanied Chairman Byrd's letter of February 17, 1958. As suggested in his letter, the questions have not been answered separately, but have been used as a guide in organizing the discussion.

The questions and the comments have been brought together under five main headings. Part I discusses the meaning of inflation and deflation and their causes, and reviews the experience of recent years. Part II considers the interrelationships of three main objectives of economic policy and the problem of endeavoring to harmonize these objectives. Part III reviews the policies pursued by the Federal Reserve System since 1942, with reference to wartime and postwar developments generally and to the recurrent inflationary tendencies of the period more specifically. Part IV comments on fiscal policies, both at the Federal Government level and at the State and local government level, and also on Federal-debt-management policies. Part V discusses the monetary system of the United States, and the relationships between fiscal and debt management policies and monetary and credit policy.

PART I

ASPECTS OF INFLATION AND DEFLATION

Few concepts in the field of economics have been subject to such a wide variety of interpretations as the terms "inflation" and "deflation." It is common practice to define these concepts in ways that focus upon specific forces as major sources of these problems. Such usage is often dictated by the problem of the moment, and since inflation and deflation in any specific setting have characteristics that are more or less unique, these definitions are not useful under all conditions in selecting for analysis those developments of particular significance under new circumstances.

DEFINING INFLATION AND DEFLATION

The variation in usage is revealed by noting some characteristics of four familiar definitions of inflation, all of which may be found, either explicitly or implicitly, in a wide range of economic writings:

1. Inflation is a general rise in prices produced by expansion of money and credit supplies at a more rapid rate than growth of the economy's output potential.
2. Inflation is a general rise in prices created by excessive Government spending and deficit financing.
3. Inflation is a general rise in prices elicited by an expansion of aggregate demands beyond the capabilities of the economy to supply goods and services at existing price levels.
4. Inflation is a general rise in prices fostered by wage increases in excess of productivity gains.

Each of the above definitions has the property of defining inflation in terms of an alleged cause of rising price levels. The first three find the core of the difficulty in factors affecting total spending, although the precise factors are not necessarily identical, while the fourth points to forces affecting production costs. Each regards inflation as a kind of economic disorder or disturbance, while considering the price movement largely as symptomatic of an underlying problem.

None of the above definitions may be regarded as "correct" or "incorrect." The question may be raised, however, whether a definition couched in terms of a specific cause of rising prices ever is likely to command universal support. It is preferable perhaps to choose a definition of inflation which is entirely neutral as to the source of advancing prices, a solution to which professional usage has turned increasingly. Inflation, in this view, is regarded simply as an upward movement of the general price level, irrespective of the originating forces. Alternatively, inflation may be identified as a reduction in the purchasing power of money, which varies inversely with prices.

This definition leaves unanswered the important questions of causal factors and appropriate remedial actions but, by virtue of that fact, clears the air for meaningful discussion on these critical matters.

Customarily, inflation develops during the expansionary phase of cyclical movements about the growth trend of the economy. On the other hand, an expansion in business activity may create enlarged employment and production without being classified as inflationary.

In similar fashion, construction of a comparably neutral definition of deflation necessitates only that it be associated with the contractive, or readjustment, phase of deviations from long-run growth. Such identification is foreign to much of the early history of formal economic writings. Commonly, for example, if inflation were defined as a rise in prices associated with an excessive growth of money and credit supplies, deflation would be identified with a fall in prices produced by contraction of money and credit supplies. Other phenomena accompanying periods of monetary contraction—such as reductions in employment and production—were given less emphasis.

As the analysis of economic stability problems progressed, periods of depressed employment and production increasingly were called to the attention of observers. In part, this may reflect the fact that as industrialization proceeded in western nations, cyclical fluctuations became more obvious. But at the same time, recognition of these disturbances was enhanced by the accumulation of data on production and employment, which lagged considerably the collection of price statistics. With these developments, the concept of deflation was broadened, and definitions of deflation became more neutral as to causation, reflecting a growing awareness that economic contractions might encompass other variables than prices alone.

A working definition of deflation must recognize that periods of moderate contraction in economic activity need not always be accompanied by a general reduction of prices. It is true that contractionary tendencies in the economy, in the past, nearly always have elicited a downward price readjustment. Nevertheless, it is evident from the behavior of prices during the mild recession of 1953-54—when selective price adjustments had comparatively little impact on the general price level—that moderate contractions in business activity may produce little response in prices.

Before turning to some questions of identifying and measuring inflation and deflation, it may be useful to comment briefly on the concepts of inflationary and deflationary pressures. The suggested definitions of inflation and deflation are essentially descriptive: the words are defined in terms of movements of observable variables. Underlying these movements are economic disturbances creating inflationary or deflationary pressures, and it is well to recall that these forces are not always communicated instantaneously to the general levels of employment, production, incomes, and prices. Inflationary or deflationary tendencies may operate for many months before accumulating sufficient strength to generate open inflation or deflation. And with respect to upward pressures on the price level, it may be noted that inflationary forces, having gathered strength, may be partially repressed over extended periods by conventional industry pricing practices or governmental regulations and controls. In many industries, price adjustments are made at discrete intervals, and a considerable amount of time may elapse before the pressure or rising costs or the pull or rising demands is reflected in pricing decisions. The celebrated inflationary gap of the World War II and immediate postwar years exemplifies the repression of inflationary forces with Government controls.

QUESTIONS OF IDENTIFICATION AND MEASUREMENT

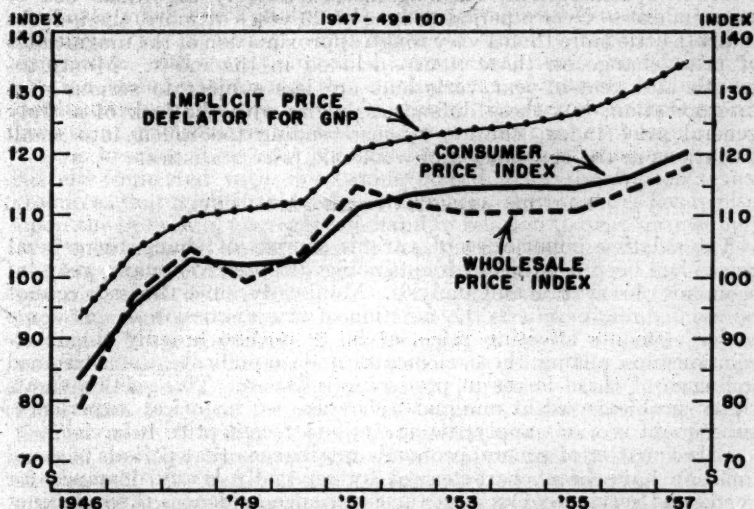
Having adopted general definitions of inflation and deflation expressed in terms of variations in employment, production, incomes, and prices, problems of both a conceptual and a statistical nature are encountered in tying the definitions to specific measures of these variables. It is clear that indexes to gage the movement of these variables should be based on broad aggregates. A price increase in one industry, for example, is not necessarily inflationary, nor is a decline in another industry necessarily deflationary. Alterations in the industrial composition of output and employment occur continuously, and relative price changes perform an important function in guiding the transfer of resources from one sector of the economy to another in accordance with final demand.

Reasonably adequate measures of aggregate employment and personal income are available on a current monthly basis. Production statistics may be obtained on a current monthly basis only for the Nation's factories and mines, but movements of output in these sectors are a fairly sensitive and useful indicator of expansive or contractive tendencies. Each of these measures is comparatively free of serious defects conducive to drastic misinterpretation. Various statistical and analytical refinements—such as seasonal adjustments, distinctions between random and other variations, adjustments of money income for price changes, distinctions between voluntary and involuntary withdrawals from the labor force, and adjustments of employment data for changes in the length of the work week—are essential to a proper interpretation of changes in the magnitude of these variables, but these are, in the main, well known.

Measures of price change raise several difficult conceptual questions. There are available currently two indexes relating to the price behavior of broad groups of goods and services, the consumer and wholesale price indexes. The former is designed to measure price changes of goods and services typically purchased by wage earners and clerical workers living in urban areas; the latter records prices at primary market levels of farm products, processed foods, and industrial commodities at various stages of fabrication. One test of the adequacy of these indexes to represent general price changes is provided by comparing their behavior with that of the implicit price deflator for gross national product. The last-named statistic is constructed by the Department of Commerce in removing price-level variations from dollar gross national product figures, and is, perhaps, the single available measure most closely representing prices of all goods and services.

As is indicated in the chart, the 3 measures show a substantial degree of uniformity over a relatively long period, such as the 12 postwar years. In periods of a few years or less, however, the indexes may depart strikingly in their rate of change. From 1952 to 1957, wholesale prices advanced 5.4 percent and consumer prices 5.9 percent, according to the indexes, while the implicit gross national product deflator shows a rise of 10.2 percent. Part of this divergence is explained by changes in wage rates of Government employees and in the prices of construction and exports and imports, all of which are included in the price deflator. In addition, the price deflator reflects the relative importance of all goods and services, rather than the selected items in the wholesale and consumer price indexes.

MEASURES OF GENERAL PRICE CHANGES



Sources: Bureau of Labor Statistics, Department of Commerce, Council of Economic Advisers.

Recognizing the limited coverage of existing indexes, it is not possible to decide whether consumer or wholesale prices provide the better guide to general price movements in the short run. Both consumer and wholesale prices must be observed and, indeed, supplemented to whatever extent possible by observation of any other available data not covered by these indexes—residential construction costs, for example. When these measures of price move in opposing directions, as they occasionally have in recent years, there may be no clear or simple way of identifying the direction of general price changes.

Further difficulties arise in interpreting movements of a price index. Ideally, a price index measures the average price change of a given bundle of goods and services of constant quality. Practically, improvements in product quality, shifts in the kinds of commodities marketed, and changes in expenditure patterns also are reflected in movements of the price index, despite the employment of highly refined statistical techniques to minimize these influences.

Improvements in product quality can be quite troublesome, for, to the extent that adjustments cannot be made, an inherent upward bias is introduced into the index, overstating the extent of the price increase. An illustrative example which may be cited is the interpretation of the increased cost over the past 20 years of a typical visit to a doctor's office. Part of this increase, clearly, reflects the general upward movement of prices during the period. But it is evident that an office call in 1958 is not the same service as an office call in 1938. Diagnostic techniques have improved immensely; more diseases are cured faster and more completely. These are major quality changes which defy quantification and measurement.

These considerations warn against excessively ambitious use of price indexes. Over a period as long as 20 years or more, the indexes indicate little more than a very rough approximation of the magnitudes of price change on those items included in the index. Month-to-month and year-to-year variations are less subject to serious misinterpretation, but these difficulties, along with the lack of a truly general price index, caution against reading too much into small variations in the consumer and wholesale price statistics.

FACTORS AFFECTING THE PRICE LEVEL

The relative importance of various sources of change in general prices has been a subject of continuing dispute over many years of economic observation and analysis. Manifestly, since the issue cannot be readily resolved, it is the function of this discussion to cite some major elements affecting price levels, to outline broadly the interrelationships among these elements, and to indicate the combined influence of these forces in producing inflation. This section treats these problems with minimal reference to historical experience; subsequent sections apply the analysis to recent price behavior.

It is a matter of general economic intelligence that periods of rapid inflation have been characterized by especially heavy demands for goods and services. Our postwar experience evidences three distinct periods in which the inflation problem has been thrust to the forefront of the economic scene—from about mid-1946 to mid-1948, the year beginning in June 1950, and the period from mid-1955 onward. In the first 2 of these 3 episodes are seen the inevitable aftermath of global war and the reflection of abnormal strains accompanying defense production and mobilization, while the third represents the effects of an extraordinarily vigorous capital-goods boom, following a residential construction and consumer durable-goods boom.

That war periods produce serious inflationary tensions no one seems to question or to regard as unusual. It appears to be understood less readily, on the other hand, that peacetime booms give birth to multiplicity of price-boosting forces. The statement that supplies of goods and services are relatively inflexible in an economy running close to full-capacity production, so that further increases in demand encourage advancing prices, is but a partial expression of the potent inflationary forces inherent in a major industrial boom.

The encouragement of industries to ration short supplies of goods through price increases during boom periods is accompanied by a forceful push from advancing costs. These stem not only from the increased bargaining strength of organized labor as industry profits expand, but from the declining resistance of firms to wage demands as it becomes less difficult to shift cost increases to customers. Competitive bidding for scarce labor resources is another essential ingredient in the growth of money-wage rates, and in the encouragement of wages of wives, teen-agers, and older workers to offer their services in the labor market. Significantly, these cost pressures are at their maximum when productivity gains are least likely to offer an offsetting influence. During recovery from a condition of underemployed resources, the initial phase of the upswing normally is accompanied by exceptional increases in efficiency, but these gains do not continue with further growth of output in relation to capacity. A well-

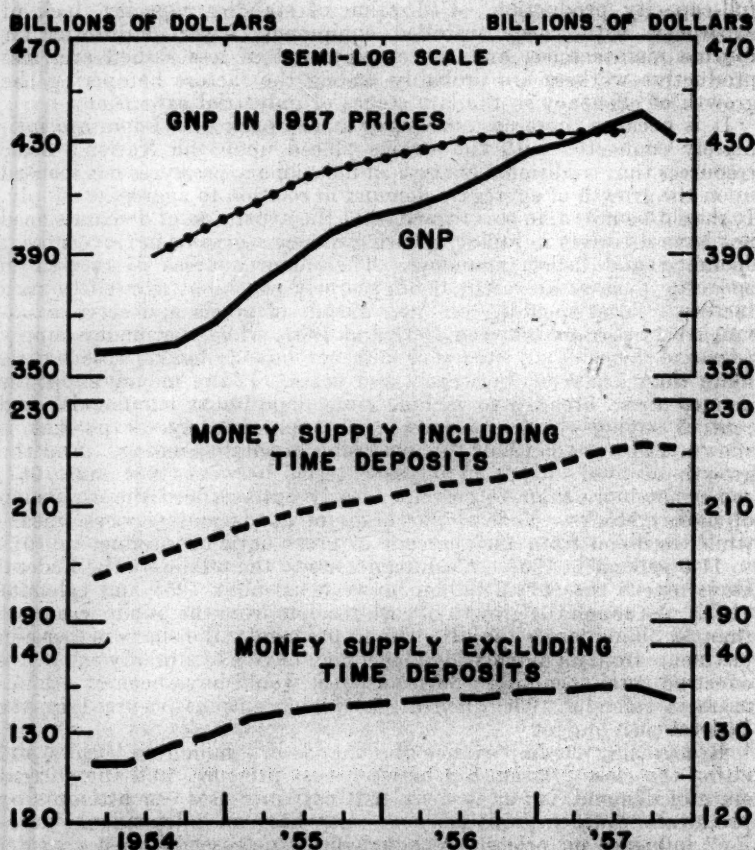
established feature of our cyclical experience is that productivity increases much less rapidly as the economy moves into the region of full-capacity production. Utilization of standby capacity, lack of experience with newly installed equipment, fewer shutdowns for routine maintenance, and the employment of less skilled and less productive workers are probably among the factors hampering the growth of efficiency in the late stages of industrial expansion.

It is because these cost pressures at the peak of a boom are intimately connected with the strains placed upon the Nation's basic resources that traditional analysis of inflationary pressures has focused upon the growth of aggregate demand in relation to aggregate supply. It should be noted, in this regard, that the expansion of demands need not have its origin in rapidly growing money stocks or in Government spending and deficit financing. The major sources of growth in spending during the recent boom scarcely can be attributed to such factors. Total spending on final output of goods and services advanced 20 percent between 1954 and 1957, while the money supply (demand deposits adjusted plus currency outside banks) rose a little more than 5 percent between these years. If the money supply is defined more broadly to include time deposits at commercial and mutual savings banks, a growth of approximately 10 percent is shown, still less than half the expansion of total spending. And the growth of total output in physical terms between 1954 and 1957, somewhat more than 11 percent, clearly outdistanced the expansion of money stocks. Federal purchases of goods and services, meanwhile, declined from 13.5 percent of gross national product in 1954 to 11.6 percent in 1957. Cash payments to the public by the Federal Government rose \$13.6 billion between calendar 1954 and calendar 1957. Although the growth of cash receipts from the public was more than \$2 billion larger than the rise in payments, the sharp increase in payments from an already high level may have had a mildly expansive effect on total spending. Such an effect would have been at a minimum in calendar 1956 when a \$5.5 billion surplus occurred in the Federal cash budget.

Recognizing the importance of demands in "pulling up" prices, and citing the close relationship between cost pressures and the current state of demand, is not to deny that cost increases—or attempts by producers to widen profit margins—may have an independent "pushing" influence on prices. Although firms necessarily must consider demands in establishing prices, it is evident that there are few areas in the economy in which prices are completely beyond the influence of the individual seller. Thus, a firm faced with rising costs or desiring to expand profit margins per unit of sales may, even in the face of constant demand for its output, elect to increase prices even though that may involve a decline in sales.

In this connection, a few remarks are appropriate concerning the alleged noninflationary character of wage increases which do not exceed productivity gains. It cannot be questioned that if wage increases in every firm were at the same rate as productivity gains in that firm, there should be no upward force on prices arising from this source. But widespread application of this rule is difficult to imagine when there are marked differences in productivity gains among firms in a given industry and among the various industries. Wage concessions

MONEY SUPPLY, SPENDING, AND OUTPUT



NOTE.—Money supply includes currency outside banks plus demand deposits other than interbank and U. S. Government, less cash items reported as in process of collection. Time deposits added to money supply include all time accounts at commercial banks, mutual savings banks, and Postal Savings System. Quarterly figures are averages of end-of-month data.

Sources: Board of Governors of the Federal Reserve System, Department of Commerce, Council of Economic Advisers.

granted to labor in those firms where productivity gains are largest tend to spread quickly to other firms in the industry, and to other industries, a process facilitated by the keen competition among individual labor organizations and by competition among employers. Also, the rule may be difficult to maintain when the structure of demand tends to shift to those industries where productivity gains are comparatively low. Transfers of resources from one industry to another are not costless, and attraction of adequate labor supplies to those industries where demand is rising may necessitate a rise in wage

rates beyond that permitted by efficiency increases. In this case, price stability is threatened unless downward price adjustments in industries experiencing slackening demands match upward price movements in industries which are expanding output. Our price structure, however, does not appear to be sufficiently flexible to insure that these offsetting variations always will occur.

Mention of price inflexibilities suggests another line of reasoning whose implications have an important bearing on long-run price trends. For a variety of reasons, downward flexibility of many prices is comparatively small. The resistance of wage earners to wage cuts is only part of the story. Heavy contractual payments clearly undermine the willingness to reduce prices, as do governmental controls—excise taxes, tariffs, minimum wage laws, and regulated prices, for example. Indeed, governmental policies are sometimes designed deliberately to prevent downward adjustments in specific prices. The support of agricultural prices, the elevation of tariff barriers to protect injured industries and retail price maintenance codes are specific examples.

The extent of these downward price rigidities militate against price declines in periods of moderate business contractions. Since inflation in periods of booming economic activity tends to become "built in" to the cost structure, price behavior in periods of cyclical expansion and contraction tends to be asymmetrical. Obviously, it might be possible to break down many of these price rigidities by permitting massive contractions of demands for goods and services, and corollary movements of production and employment, but such a solution is unacceptable, as is recognized in the Employment Act of 1946.

CYCLICAL FLUCTUATIONS AND GROWTH—THE GENERAL POSTWAR EXPERIENCE

During the postwar decade, the total real output of the economy has increased by an average rate of about 3.3 percent a year. Mild fluctuations in the growth rate have occurred, with annual changes ranging from an increase of nearly 10 percent to declines of slightly more than 1 percent. Total industrial production, covering the output of the Nation's factories and mines, has grown more rapidly, averaging 4.5 percent a year. Annual changes in this broad sector of the economy also have been somewhat more pronounced, ranging from a gain of more than 15 percent to declines of nearly 7 percent. In agriculture, the rate of increase has been about 1.5 percent a year. On the whole, these figures indicate more rapid growth in real output during the years since World War II than during the last half century.

Growth in employment over the period has paralleled the expansion in real output. The rate of increase, however, has been much less and has averaged somewhat more than 1 percent a year. With the number of hours worked continuing downward, the rate of increase in man-hours has been even less. For the private sector of the economy, the average annual gain in man-hour employment has been about 1 percent over the period since 1947. In agriculture, both employment and hours of work have declined. The differential rates of growth between real output and man-hours worked point up the enhanced productivity during the period.

During the postwar contractions, as has been true historically, unemployment increased more than employment declined. This reflects the tendency of the labor force to grow with the increased numbers of persons of working age in the population. Cyclical fluctuations in economic activity and job opportunities, however, do cause the rate of gain to vary over short-run periods.

In dollar terms, the gain in output during the postwar period is more pronounced than the increase in physical production. The corresponding flow of income likewise has risen more rapidly. For example, national income, that is total net income earned in production of goods and services, rose by more than 6.5 percent a year on the average. The differential between the two measures—money and real value—reflects the rising prices of goods, services, and the factors of production.

Prices of the goods and services in the Consumer Price Index have risen about 44 percent since 1946, as has the implicit price deflator for GNP. Meanwhile, annual average prices of wholesale commodities increased nearly 50 percent. Average hourly and weekly earnings of manufacturing production workers, which provide a rough indication of the advance in price of an important kind of labor, have almost doubled over the period.

THREE WAVES OF INFLATION

During the period since the end of World War II, there have been three distinct inflationary movements. In the first, prices reached a peak in the late summer of 1948. Wholesale prices during the interval from the beginning of 1946 to their high point in August 1948 shot up 53 percent and consumer prices rose by more than one third. Prices declined during the recession of 1949, reaching a low point at the beginning of 1950. Wholesale prices declined 8 percent and consumer prices 4 percent during the interval.

A revival in wholesale prices had already started by the time the Korean war broke out in June 1950 but the rise was more rapid thereafter. In the early months of 1951, prices in wholesale markets were 19 percent higher than at the beginning of 1950. During the remainder of 1951 and 1952, wholesale prices declined slightly and subsequently remained stable in 1953, 1954, and the first half of 1955.

During this period—1951 through 1954—wholesale price movements did not parallel general economic activity, which continued to expand until mid-1953. This divergence between the movements of wholesale prices and overall economic performance after early 1951 probably reflected in part a reaction from speculative buying and hoarding in both United States and world commodity markets that followed the outbreak of the Korean war. When supplies of raw materials and other commodities proved to be more than sufficient to meet demands, prices broke. Later, wholesale prices failed to move with general activity in 1953 and 1954, when they held steady in the face of reduced production, employment, and income.

The index of consumer prices also increased rapidly during the early phase of the second postwar inflationary period initiated in 1950. The swift pace of the advance was slowed somewhat during 1951, and after mid-1952 the index leveled off. At its peak, the Consumer Price Index was 15 percent higher than it had been in February 1950.

During the subsequent decline of business, consumer prices held steady with only a minor tendency to decline.

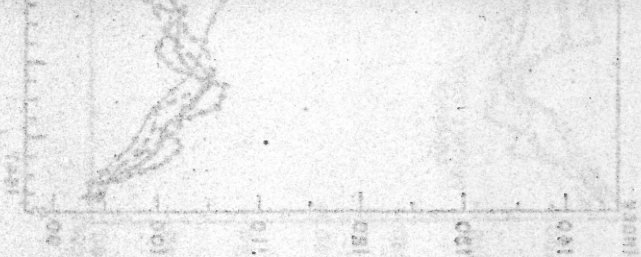
The third postwar wave of price inflation began in mid-1955, when wholesale prices began to advance rapidly. Following its customary timelag, the index of consumer prices started to rise in the spring of 1956. By January of this year, the increase amounted to about 7.5 percent in the wholesale index and about 6.5 percent in consumer prices, with recent advances generally being rather small.

This description of price movements throughout the past 12 years points to a significant conclusion; namely, that inflation has been a major postwar problem. The evidence shows both that periods of rising prices have been longer and that the effects of these advances have been additive in that deflation has failed to reduce prices to the levels preceding inflation. Furthermore, the rate of inflation has been very uneven as prices proceeded on their upward course at an irregular pace.

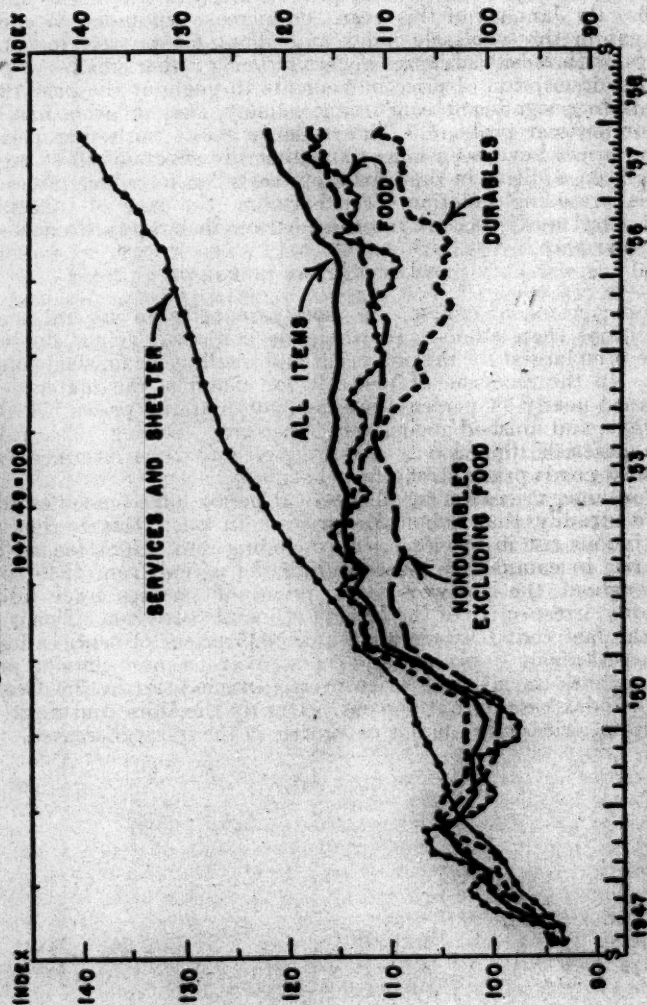
THE STRUCTURE OF PRICES

Some prices, of course, are more responsive to general economic conditions than others. In wholesale markets, cyclical fluctuations have been largest for raw materials and smallest for finished commodities. In the recession of 1948-49, for example, raw-material prices declined nearly 14 percent; intermediate material prices fell about 4 percent; and finished goods, only 3 percent. During 1954, prices of raw materials dipped only about 1 percent, while intermediate and finished goods prices strengthened slightly.

Consumer prices during the postwar period have tended to advance more steadily than wholesale prices. In part, this is due to the continuous rise in service prices, including rent, which lagged behind the rise in commodity prices during the period from 1939 to 1948. Throughout the postwar years, prices of services have advanced steadily, irrespective of the level of economic activity. This is shown by the fact that between 1948 and 1955 prices of services less rent increased about 30 percent and rents advanced more than 29 percent. Meanwhile, the average price of all commodities in the Consumer Price Index rose only 5 percent. During the third and most recent inflation, prices of all major categories in the index increased.

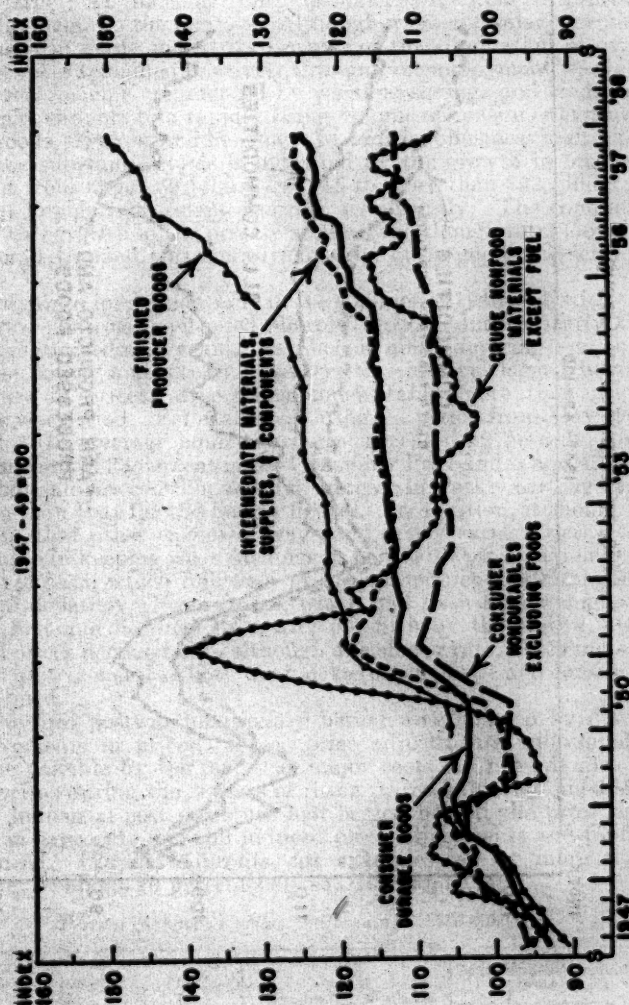


CONSUMER PRICE INDEX Commodities and Services



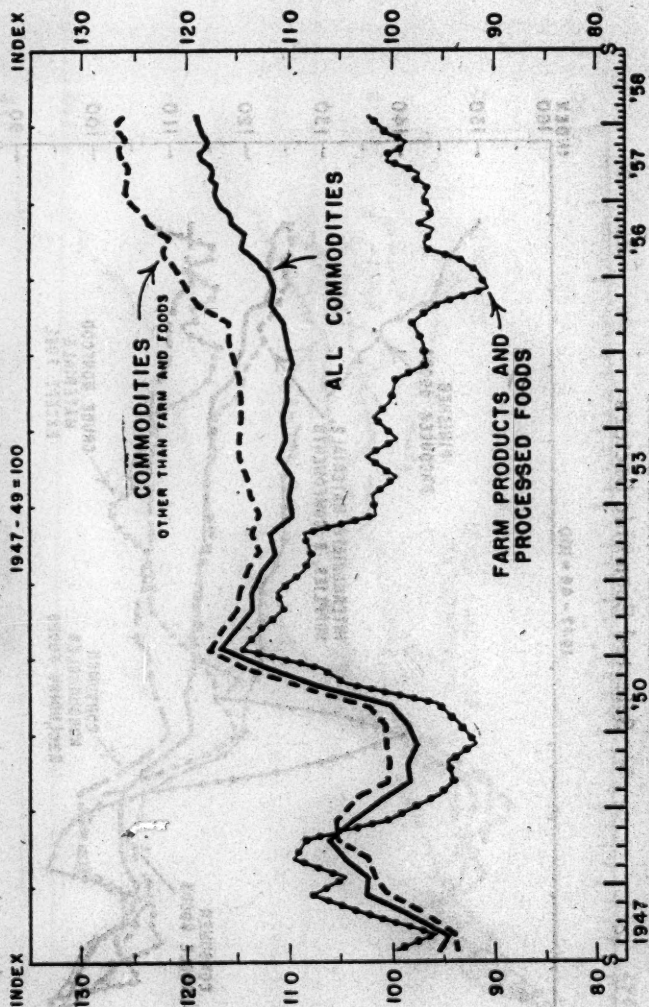
Sources: U. S. Bureau of Labor Statistics.

WHOLESALE PRICE INDEX Selected Economic Sectors



Source: U. S. Bureau of Labor Statistics.

WHOLESALE PRICE INDEX Major Commodity Groups



Source: U. S. Bureau of Labor Statistics.

INFLATION AND READJUSTMENT, 1946-49

With the return to peacetime conditions following World War II, conditions were favorable to inflationary developments. Accumulated demands for goods that were unavailable or in short supply during the war were large. At the same time, consumers were able to translate their requirements to the market. Although wage and salary incomes were reduced in many industries because of the elimination of overtime, wage rates remained relatively firm and unemployment was low. Thus, current income, augmented by wartime savings and credit extension, gave support to a rapidly rising volume of consumer expenditures for goods, services, and housing. In addition, business multiplied its demands substantially, as is indicated by the growth in business investment from about \$9 billion in 1945 to more than \$32 billion in 1948. Net foreign investment also rose significantly. The combined impact of this growth in the private sector, even though total Government demand dropped, was excessive in terms of the goods and services available.

Prices began to increase rapidly in the summer of 1946 and, with the end of price controls, continued sharply upward during nearly the whole of the succeeding 2 years. Earnings in manufacturing—on both an average hourly and weekly basis—in this interval lagged behind the advance in prices, after rising considerably more than prices during the war period. For example, during the period from May 1946 to August 1948, average hourly earnings increased 28 percent, compared with gains of 33 percent in the Consumer Price Index and 47 percent in wholesale prices. The relative increase in weekly earnings was little more than that for the hourly figures. In addition, it should be pointed out that other classes of wage and salary earners were even less fortunate in keeping their earnings in pace with price advances.

In the recession which followed, price readjustments accompanied the general deflation. Farm prices, which had risen to new highs in 1948, fell first and declined by nearly one-fifth by the end of 1949. Industrial prices declined also, although at a slower rate. Weakness in prices was quite general as both the indexes of wholesale and consumer prices declined.

Thus the first postwar inflationary period was followed by downward movements in prices. These price adjustments undoubtedly were made possible by the fact that major costs did not advance as much as prices during the 2 years of rising prices following mid-1946. Since the industrial cost structure had lagged behind the price rise, weakness in aggregate demand induced price adjustments and profits were reduced. Corporate profits, for example, fell by more than \$6.5 billion, or about 20 percent between 1948 and 1949.

Percent changes in prices and earnings, 1946-49

	Consumer Price Index	Wholesale price index	Manufacturing production workers	
			Average hourly earnings	Average weekly earnings
May 1946-August 1948.....	+32.8	+47.3	+28.0	+29.5
August 1948-December 1949.....	-3.6	-8.0	+2.9	+1.8

Wage rates, however, did not decline during the 1949 deflation. Average hourly earnings of factory workers leveled off at about \$1.40 an hour and weekly earnings at slightly more than \$55. Thus, in the first postwar experience of inflation and deflation, wage rates followed prices up, failed to gain as much as prices, and held firm as prices declined.

INFLATION AND READJUSTMENT, 1950-54

During the second wave of inflation, the early price movements can be traced to the outbreak of the Korean war. Uncertainty concerning the size of the war, the prospect of sharply rising Federal Government demands, and active business and consumer buying contributed to rapid price advances. Wholesale prices by March 1951 had jumped about 17 percent in 10 months, while the Consumer Price Index rose about half that amount. Price and wage controls went into effect in the latter part of January 1951.

Average hourly earnings in manufacturing during the early months of this period increased at nearly the same rate as the Consumer Price Index. Weekly earnings, on the other hand, climbed steeply during the last half of 1950 and by March 1951 were nearly 9 percent above the June 1950 level. During the next year or so—to the summer of 1952—hourly earnings increased somewhat more rapidly than consumer prices. In mid-1952, however, the rate of advance in average hourly earnings increased, and earnings continued to rise throughout 1953. Meanwhile, the level of consumer prices was relatively steady, as were wholesale prices following their decline from early 1951 levels.

In retrospect, it is somewhat surprising that prices held steady. On the demand side, the increase in average earnings had been accompanied by a sharp gain in employment, with the result that personal income advanced rapidly. This purchasing power, in turn, was bolstered by sizable expansions in consumer credit in 1952 and 1953, as had been the case earlier in 1950. And Government, of course, assumed a significant role during the period as Federal Government purchases increased by about 1½ times.

On the cost side, the earnings of labor were advancing. In 1950, these increases were offset by increased productivity as output moved up toward capacity. Starting with 1951, however, the increase in output per man-hour was smaller as the usual shortages and capacity limitations of a wartime period assumed significant proportions. Accordingly, the cost-reducing effects of productivity gains were not so successful in counteracting increased wage costs.

During the mild recession which followed the end of the Korean war, price readjustments were conspicuously absent. At the bottom of the downturn in the summer of 1954, both consumer and wholesale prices were little different from what they had been a year earlier. For 1954 as a whole, both indexes averaged slightly higher than they had in 1953. Meanwhile, average hourly earnings continued to edge upward. At mid-1954, hourly earnings of factory production workers were nearly 2 percent above their level in mid-1953. Weekly earnings were down slightly due to the reduction in hours worked.

Percent changes in prices and earnings, 1950-54

	Consumer Price Index	Wholesale Price Index	Manufacturing production workers	
			Average hourly earnings	Average weekly earnings
January 1930 to July 1953.....	+14.0	+12.5	+24.6	+26.7
July 1933 to July 1954.....	+4	-5	+1.7	-6

INFLATION AND READJUSTMENT, 1955-57

The expansion of 1955-57 has been labeled a capital goods boom. In a real sense, this is true. The expansion was initiated by rapidly increasing activity in residential construction and by the upsurge in demand for new automobiles. Later, massive outlays for new plant and equipment by business, together with heavy inventory accumulation, were primarily responsible for pushing demands strongly upward. These expenditures were supported by rapid credit growth which fully employed available savings and other financial resources. In addition, aggregate demand was bolstered by growing consumer spending for other goods and for services and by substantial increases in Government and foreign trade demands.

As the expansion of this period developed, it very quickly became evident that aggregate supply—resource availability and utilization—as well as aggregate demand held vital keys to an understanding of the economy's growth and to price-cost relationships.

In few periods of our peacetime economic history have labor resources been taxed more heavily than during the boom of 1955-56. Annual increments to the civilian labor force in 1955 and 1956 were well above any year since 1947, even though additions to the adult population were somewhat below the average of the 1948-56 period. Attractive job opportunities and rising wage rates encouraged additional persons to offer their services in the labor market, and the participation rate—the proportion of the adult population in the total labor force—advanced to 59.3 percent in 1956, the highest annual figure of the postwar decade including the Korean war episode.

The point of maximum stringency in the labor market appears to have been reached some time in the latter half of 1956. The overall labor force participation rate reached seasonal peaks in June and July of that year at the highest level for any postwar month. Labor force participation declined seasonally in the fall months, but unemployment was reduced to less than 3 percent of the civilian labor force in September and October—the lowest level in several years—in the wake of advancing production following the summer steel strike.

In addition to labor force and employment developments, the relationships between capacity and output illustrate another dimension of the inelasticity of the aggregate supply of goods and services during late 1955 and most of 1956. Continuous series on capacity-output relationships are available only for specific components of manufacturing where the nature of the product permits a meaningful definition

of capacity. Fortunately, these sectors include the major industrial materials—metals, cement, woodpulp, paper, paperboard, petroleum products, coke, textiles, and certain industrial chemicals—whose supply is essential to a broad base of other production activities. In the years 1953 through 1955, major materials producers added about 11 percent to their output capacity through capital expenditures. From the first quarter of 1953 to the first quarter of 1956, however, output of major materials advanced about 14 percent. The materials industries were operating in late 1955 and early 1956 at utilization rates as high or higher than in the opening months of 1953, when production reached peak levels of the Korean period. In some critical segments, such as structural steel, demand outran capacity.

In a very significant sense, these developments in aggregate demand and supply during the most recent expansion help provide an understanding of the inflationary pressures of the period. In contrast with the two earlier waves of rising prices and wages, important external factors were small. Thus, the most recent period of inflation was generated within the economy. The evidence, which has been cited only briefly above, points clearly to the upward pull of demand and the upward push of limited supply on prices, wages, and costs during the period.

Substantial increases in wages—both hourly and weekly earnings of manufacturing production workers—occurred during 1955. By the end of the year, average hourly earnings had advanced 7 percent and weekly earnings by more than 12 percent from the January 1954 level. The rate of increase in the wage series continued high during 1956 and subsequently moderated in 1957. In the early autumn of last year, hourly earnings were about 13 percent higher than they had been in January 1955. In addition, there were substantial increases in fringe benefits.

Prices, on the other hand, followed behind the wage advances. Wholesale prices continued stable through the first half of 1955, marking a 2½-year period during which there was very little movement in the overall index. Consumer prices held steady near the levels of late 1953 throughout 1954, 1955, and on into early months of 1956.

Within the overall stability of the price indexes, however, important movements were taking place. While farm and processed-food prices continued downward in 1954 and 1955, industrial prices in the wholesale index remained firm and began to rise sharply after mid-1955. A similar picture of divergent movements is apparent among the economic sector components of the wholesale price index. Prices of crude nonfood materials except fuel, which had dropped by nearly 40 index points from early 1951 to early 1954, began to increase. Finished producers goods prices held steady through most of 1954, following continued strengthening after 1950. After mid-1955, prices of producers goods spurted sharply upward, reflecting the strong growth in business investment. Prices of consumer durable and non-durable goods except foods in wholesale markets were relatively stable in 1953 and 1954, but they began to advance in the summer of 1955. Prices of intermediate materials, supplies, and components also started upward in mid-1955, following a rather long period of stability.

Percent changes in prices and earnings, 1955-57

	Consumer price index	Wholesale price index	Manufacturing production workers	
			Average hourly earnings	Average weekly earnings
January 1955 to September 1957.....	+5.9	+7.2	+13.0	+12.2
September 1957 to January 1958.....	+1.0	+6	+1.0	-2.1

With most of the major components in the wholesale index turning up in mid-1955, the general level of prices at wholesale began to rise. Early in 1956, the rising components were joined by increasing prices for farm products and processed foods. Between January 1955 and the autumn of 1957, the overall index of wholesale prices rose more than 7 percent. Since then, there has been little net change in the average price level, with most major groups, except crude nonfood materials other than fuel, continuing strong.

The stability of the overall index of consumer prices during late 1953, 1954, and 1955 reflected largely two opposing price movements. Advancing prices of services and shelter were offset to a significant degree by falling prices for consumer durables. The latter development was due primarily to the rapid spread of discounting among retailers. Food prices also tended irregularly downward during the period, while prices of other nondurables were relatively stable.

Early in 1956, consumer food prices increased sharply, following largely the rise in wholesale farm and processed food prices. Later in 1956, the prices of durable goods to consumers rose, reflecting both higher manufacturers' prices and the unwillingness of retailers to cut their margins further. These increases, coupled with the persistent rise in service prices and advancing prices of nondurables excluding food, turned the index of all items upward. From its January 1955 level the index rose about 6 percent by September 1957 and advanced another 1 percent by January 1958.

PRODUCTIVITY, PRICES, AND COSTS

Advancing wage rates have accompanied rising prices during each of the postwar inflationary periods. For the important manufacturing sector of the economy, it has been noted that the rise in earnings of factory production workers was relatively smaller than the price rise during the first period. The reverse condition was true in the second and third periods, as earnings mounted more rapidly than prices. In addition, it was pointed out that during succeeding periods of deflation, wages resisted cuts.

Actual labor costs per unit of output, however, have not gone up as much as earnings. Productivity gains have offset to a substantial degree the increase in average hourly earnings. The gain in output per man-hour in manufacturing holds an important clue to recent price-cost relationships. During 1954, for example, significant improvement in productivity resulted in a decline in production-worker payrolls per unit of output, according to United States Bureau of Labor Statistics data. This decline was a reversal of the upward movement from 1950 to 1953.

This productivity gain and the accompanying improvement in labor cost per unit of output help explain the relative stability of prices during 1954 and 1955. Wholesale prices of finished goods—as well as the overall wholesale and consumer price indexes—held steady during the period. As the pace of economic activity quickened, later on, pressure on resources became more intense and productivity gains smaller. Prices also advanced sharply.

The Nation's economy, however, contains vastly more activities than manufacturing, although it tends to be the pacesetter in wage and productivity gains. Wage increases commonly spread into activities which lack commensurate offsets in productivity. Even within manufacturing this is true as wage advances spread from firms and industries with rapid gains in output per man-hour to those which are characterized by lower productivity. Since these higher wage costs clearly cannot be absorbed by marginal firms, they result in either curtailed operations and unemployment or, when demand is inflexible, in increased prices.

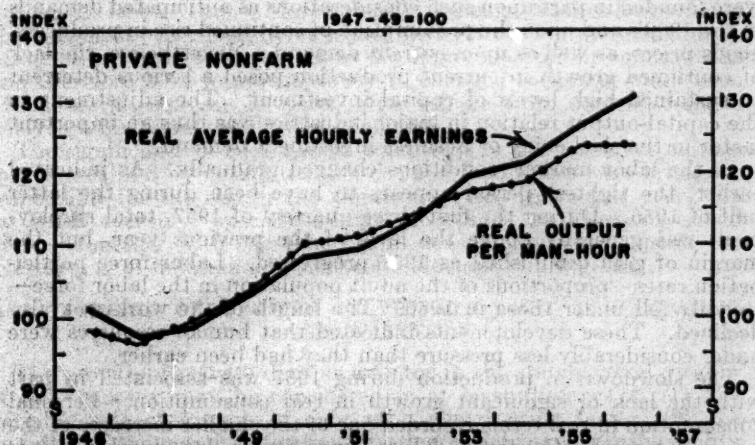
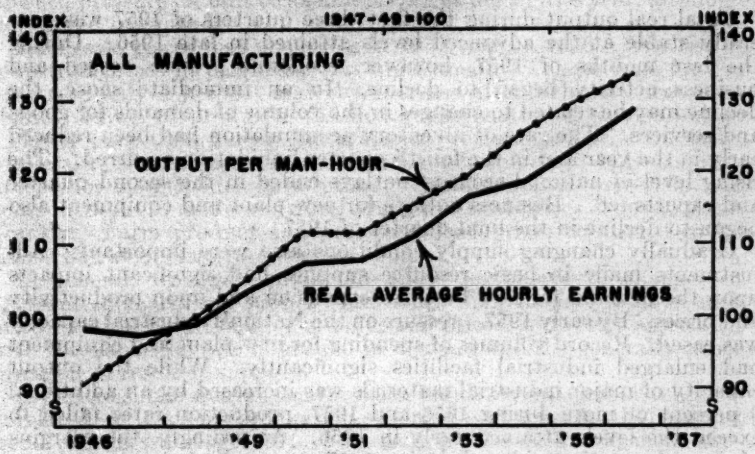
For the private nonfarm economy as a whole—that is, all activities except government and agriculture—productivity gains were greater than the increase in real average hourly earnings during the early years of the postwar period, according to BLS data. Since 1953, however, the opposite situation has prevailed, as increases in real hourly earnings have outstripped productivity gains in the total private nonfarm economy.

It is often argued that when wage increases are offset by rising productivity, there can be no upward push on prices and costs. This argument is customarily made by those associated with firms and industries in which productivity is high. At the same time, many firms and industries with lower productivity are not able to absorb the increases and are burdened with higher wages as competition among unions, employers, and employees spreads wage increases. The consequence, under conditions of strong demand, is to exert upward pressure on costs and prices.

Such inflationary situations may be further aggravated when demand is expanding for the output of activities which are characterized by low productivity. Prices, under such conditions, are likely to push up strongly as a means of transferring resources to relatively low productivity occupations in the face of rising wage rates in more productive activities.

The trend of labor productivity during the postwar years has been an important factor in the relationship between labor and nonlabor costs per unit of output. Comparisons of the rate of increase in these two costs also have been facilitated by BLS data. Again, for the private nonfarm economy, labor costs per dollar of real product, including both direct and indirect costs of labor, have sometimes lagged behind and sometimes gone ahead of nonlabor costs, a measure including depreciation, interest, taxes, profits, etc. During 1954 and 1955, when labor productivity increased substantially, labor costs again fell behind the rising nonlabor costs. As labor productivity showed little improvement in 1956, unit labor costs increased much more rapidly than did nonlabor costs. At their level in 1956, labor costs per dollar of real output had increased a little more since 1947 than did nonlabor costs.

PRODUCTIVITY AND EARNINGS



Source: U. S. 85th Cong., 1st sess., Joint Economic Committee, Productivity, Prices, and Incomes; materials prepared by the committee staff. Washington, Government Printing Office, 1957.

The relationship of these developments to the last period of inflation seems rather clear. In 1956, for the first time in about 10 years, practically no increase was recorded in real output per man-hour in the private nonfarm economy. In manufacturing, the productivity gains were smaller than in most postwar years. Thus, the failure of productivity to increase further during the year, coupled with rising wages and strong demands for goods and services, provided a strong impetus to the upward movement of prices.

CROSSCURRENTS IN 1957

Total real output during the first three quarters of 1957 was generally stable at the advanced levels attained in late 1956. During the last months of 1957, however, economic growth ceased and business activity began to decline. In an immediate sense, the decline may be related to changes in the volume of demands for goods and services. The rate of inventory accumulation had been reduced early in the year and in the fourth quarter liquidation occurred. The rising level of national security outlays ended in the second quarter and exports fell. Business outlays for new plant and equipment also began to decline in the final quarter of 1957.

Gradually changing supply conditions also were important. Adjustments made in basic resource supplies had significant impacts upon the demand for new business expansion and upon productivity and prices. By early 1957, pressure on the Nation's industrial capacity was eased. Record volumes of spending for new plant and equipment had enlarged industrial facilities significantly. While the output capacity of major industrial materials was increased by an additional 9 percent or more during 1956 and 1957, production rates failed to exceed the levels attained early in 1956. Accordingly, the margins of unused capacity widened during 1957.

Capital expansion programs during the last boom undoubtedly were founded in part upon such considerations as anticipated demands in the 1960's and upon the presumption of continued rise in producers' goods prices, as well as upon current demand. Nevertheless, the lack of continued growth in current production posed a serious deterrent to sustained high levels of capital investment. The adjustment in the capital-output relation in major industries was thus an important factor in the slackening of business investment demand.

In the labor market, conditions changed gradually. As indicated earlier, the tightest period appears to have been during the latter half of 1956. During the first three quarters of 1957, total employment was generally above the level of the previous year, but the margin of gain diminished as 1957 progressed. Labor force participation rates—proportions of the adult population in the labor force—steadily fell under those in 1956. The length of the workweek also declined. These developments indicated that human resources were under considerably less pressure than they had been earlier.

The slowdown in production during 1957 was associated in part with the lack of significant growth in real consumption. Personal consumption in real terms recorded one of the smaller increases of the postwar period. Constant dollar expenditures for durable goods did not grow, while increases in nondurable goods and service consumption were small. The moderate increase in consumer demand apparently was in keeping with the very slight gain in real disposable personal income during the year. After tax deductions and adjustment for rising prices, the relative rise in personal income was the smallest in the postwar period. In addition, the increase in consumer credit outstanding was among the smallest during the last 12 years.

With the pressures on the Nation's resources reduced in 1957, productivity gains were again more favorable. The indicated gain for 1957 was still small, although much larger than the gain in the previous year. In comparison with the increases in wage rates, the

small magnitude of productivity gain caused a continuation of the upward pressure on unit costs and on prices during the year, although in reduced magnitude.

Wholesale prices rose much less in 1957 than in 1956. The rise in industrial prices in particular was quite small. The average for the year rose only 1 percent and the increase after February was very slight. Prices of producers finished goods continued to rise but at a slower pace than during the previous year and a half. Similarly, wholesale prices of consumer finished goods increased only slightly, except for new model auto prices. Semifabricated materials and components rose moderately and crude material prices dropped significantly. Farm product and processed food prices continued to increase but at a lesser rate than in 1956.

In general, wholesale prices are more responsive to changes in aggregate demand and supply conditions. The modest gains in such prices last year, particularly in industrial prices, is directly associated with the slackened rate of growth in demand and the generally easier situation in resource supplies.

In the consumer market, on the other hand, several circumstances—unrelated to current production—loomed strongly in the upward trend of prices during 1957. For example, the decline in meat supplies, due primarily to drought and its aftermath in widespread areas of the country, has played an important role in advancing food costs during the last 2 years. More recently, freezing weather has reduced the output of other food items which have resulted in price advances. Many service prices are subject to the approval of public commissions and therefore tend to adjust slowly to changed economic conditions. Much of the increase in rents, after release from control, reflects delayed adjustments to market conditions.

The significance of such special conditions in the consumer market may be realized by noting that service and food prices were primarily responsible for the rise in the Consumer Price Index last year. In no small measure, special circumstances such as those described above—together with the time lag in consumer prices—explain the overlapping of inflation and slackening demands during 1957.

RELATIONSHIP OF GROWTH IN PRIVATE DEBT TO ECONOMIC STABILITY

The growth of private debt as a factor in the stability and vitality of the economy may be considered in at least three ways: (1) The variable rate of growth of debt as a contributing factor; (2) the liquidity of the major institutions dealing in debt; and (3) the ability of debtors to service their debts satisfactorily, thereby avoiding the threat of large-scale delinquencies, foreclosures, and distress sales.

There have been three separate surges in the growth of private debt since the end of World War II. In 1947, the growth was \$25.6 billion and was followed by 2 years of less rapid expansion, the low point occurring in 1949 with a rise of \$10.8 billion. A new wave developed in 1950 in response to the Korea war and the total rose by \$39.2 billion. From 1951 to 1954, the amount of growth declined, reaching \$13 billion in the latter year. The last wave began in 1955 with an increase of \$43.3 billion and it also has been marked by a declining amount of annual growth since that time. When these

variations in debt expansion are examined against the cyclical changes of the decade, it is seen that the slowest growth has occurred in periods of recession, such as 1949 and 1954. The largest absolute increases have occurred in the first year after the recession or in the year of initial recovery. Although there has been some tapering off of the rate of growth in succeeding years of the expansion, the rise has been sufficient to aid in magnifying demands for goods and services that would result from variations in income alone. In each of the postwar expansions, the absolute increase in personal disposable income has been greatest in the year following the peak of debt formation.

The second aspect of debt relates to the liquidity of the institutions which deal in debt. These institutions include commercial banks, savings and loan associations, mutual savings banks, and insurance companies. A number of notable changes have been made over the past 25 years in the characteristics of these institutions. Deposit insurance has contributed much to the prevention of wholesale presentation of claims. Liquidity has been improved by large investments in Treasury securities. General adoption of systematic amortization for real estate credit, Government insurance and guaranties, and reasonable equity standards for conventional mortgages have strengthened the quality of an important part of the assets of these institutions. Moreover, in the realm of corporate debt there is now little of the pyramiding that characterized public utility and commercial real estate financing in the 1920's. Other corporations also have maintained acceptable debt-equity ratios through retention of earnings and issues of equity securities.

Because of the complexity and the numerous ramifications of debtor-creditor relationships, an assessment of the ability of debtors, particularly consumers, to service their debts may be approached by a symptomatic analysis. This procedure consists of a recognition of certain variables as important for the servicing of debt and an examination of recent trends in these variables. Among the more important of these aspects of debtor-creditor relationships are the interest rate, the maturity of debt and the provisions for repayment, the level of income and its distribution, the distribution of liquid asset holdings among debtors and nondebtors. Trends in these variables may indicate that a given level of indebtedness has become less onerous but they manifestly cannot evaluate the importance of debt in any absolute sense.

Turning first to the interest cost of debts, it is apparent that this factor is not significant for short-run comparisons, for most debts will have been contracted on the basis of rates prevailing in the past. But over longer spans of time, the average interest rate on the outstanding debt can change substantially, increasing or reducing the requirement for debt service. As a rough indication of the trend in this aspect of debt, net interest as a component of national income increased from \$6.4 billion in 1929 to \$12.9 billion in 1957. In the same interval, net private and public debt increased from \$190 billion to \$708 billion, and private debt alone increased from \$162 billion to \$437 billion. From this comparison, it appears that the average interest cost on the debt has been reduced materially over the 28-year period, lowering the relative burden of a given volume of debt.

Shifts in the average maturity of debts raise or lower the ability of businesses and individuals to service their debts under conditions of reduced income. During the years from 1929 to 1957, consumer short- and intermediate-term debt increased sevenfold and mortgage debts of individuals and noncorporate businesses increased 4.2 times. But a marked change in financial practices occurred in this period. Most of the residential mortgage debt was placed on systematic amortization schedules and the average maturity was greatly extended. A similar lengthening of term structure occurred in other consumer credit. The period of repayment of installment contracts was gradually lengthened and an increased proportion of consumer debt took the form of such contracts. In 1929 installment credit was 49 percent of consumer short- and intermediate-term indebtedness; by 1939 it had increased to 62 percent, and at the end of 1957 was 76 percent. It is worthy of note that credit in this form that becomes of questionable quality is soon revealed and steps are taken to liquidate it. Moreover, the structure is given support by widespread arrangements for exchanging credit information so as to minimize overcommitments through multiple borrowings.

Still another facet of consumers' capability of servicing debt is the direction of change in the distribution of income. Annual surveys of the financial status of individuals, financed by the Board of Governors and conducted by the University of Michigan, give indications of the recent trend in this area. From early in 1952 to early in 1957, annual incomes of less than \$2,000 declined from 28 percent to 21 percent of all incomes. Annual incomes of \$2,000 and less than \$5,000 fell from 51 percent to 38 percent, and those of more than \$5,000 increased from 21 percent to 41 percent of all incomes sampled. These changes may have strengthened the ability of individuals to carry their credit obligations. Further support is evident in the declining percentage of individuals without any reserve of liquid assets. In the 5 years, their number was reduced from 31 percent to 25 percent of all reporting units.

The joint effect of factors affecting income distribution and liquid asset holdings can be brought into focus by data from the same survey. The accompanying table summarizes the information from the survey conducted early in 1957. It is evident from the table that the percentage of spending units having installment debts is greater as the size of income increases except for the highest income group. Furthermore, indebtedness in relation to liquid asset holdings increased with income size and was greatest in the bracket from \$7,500 to \$9,999. Thus, it appears that these forms of debt have increased most rapidly among units which would have the largest amount of discretionary spending power and the largest amount of liquid assets to support their debts during interruptions of earnings.

These trends which have tended to maintain the viability of the short- and intermediate-term debt structure may be thought to be counterbalanced in whole or in part by the rapid expansion both of absolute volume and its relative magnitude compared with personal disposable income. Repayments on these debts alone increased from 8.9 percent of disposable income in 1950 to 13.4 percent in 1957. Servicing of mortgages represents an additional commitment of income but it is probable that these payments are no higher, and are possibly distinctly lower, than would be absorbed by rent.

Personal debt-liquid asset relation within income groups, early 1957

[Percentage distribution of spending units]

	1956 money income before taxes—							
	Under \$1,000	\$1,000-\$1,999	\$2,000-\$2,999	\$3,000-\$3,999	\$4,000-\$4,999	\$5,000-\$7,499	\$7,500-\$9,999	\$10,000 and over
Some debt.....	29	44	55	65	69	68	70	47
No liquid assets.....	18	29	25	27	17	8	3	—
Some liquid assets—debt as a percentage of liquid assets:								
Under 61 percent.....	5	9	8	13	13	19	25	17
61-250 percent.....	3	2	7	10	14	13	15	13
251 percent and over.....	2	3	12	13	22	26	23	11

In summary, the major trends of the economy over recent years seem to have strengthened rather than weakened the ability of individuals to service their debts. These trends have been supplemented in the housing area by persistent price increases which have aided the owners in creating a margin of equity. But no debt structure is likely to be impervious to major reductions of income, and reservations therefore must be held as to how present debt volume would perform under conditions of sharply declining income. Weaknesses then would become apparent which were not discernible before.

PART II

OBJECTIVES OF ECONOMIC POLICY

This section deals with the issues raised by the questions relating to the objectives of economic policy. It does not attempt to go into the many ramifications involved, but is directed primarily at the more important problems such as the meaning of objectives, interrelations among them, and the relative importance of the principal objectives.

OBJECTIVES AND ECONOMIC CONDITIONS

Appropriate objectives of economic policy and methods of achieving them have long been subjects of concern and controversy. In the early part of the 19th century, Thomas Malthus was troubled over economic crises brought on, in his view, by general overproduction. Adam Smith was principally concerned with the conditions needed for economic growth, and David Ricardo struggled with the problem of inflation and depreciation of the currency. In 1832, an English banker, considering the problem of unemployment, stated that the Government should expand the currency until there is full employment and general prosperity.

Economic objectives as well as methods of achieving them have undergone significant shifts in emphasis, reflecting changing economic conditions and political and social ideas. The past 40 years illustrate well the nature of these shifts and some of their causes. World War I brought a sharp rise in the price level followed by a sharp decline in the early twenties. The inequities and hardships caused by the wide swing in prices focused attention on the desirability of maintaining a stable price level. Price stability became a widely accepted objective of economic policy in the twenties, but after the depression of 1920-22 increasing emphasis was placed on efforts to combat developments threatening the stability of production and employment. Until the speculative boom and collapse of the late twenties, monetary policy was commonly regarded as an adequate instrument for achieving both objectives.

Economic collapse in the early thirties ushered in a long period of stagnation and unemployment. The obvious hardships inflicted by widespread unemployment and the drastic fall in commodity, property, and security values shifted attention from inflationary dangers to efforts to promote "reflation" and increased employment. Prolonged stagnation also undermined confidence in monetary policy, and many turned to fiscal policy as a more effective method of achieving economic objectives. Although concern over unemployment was temporarily dispelled by World War II, resurgence of the fear led to legislation in 1946, establishing maximum employment along with maximum production and purchasing power as objectives of economic policy. The Employment Act also stated that it was the responsibility of the Federal Government to use all practicable means,

consistent with its needs and with fostering and promoting free competitive enterprise, to achieve these objectives. Experience has demonstrated that maximum employment needs to be interpreted as maximum sustainable employment.

Postwar expansion, interrupted thus far by only minor recessions, has brought further shifts. Persistent inflationary pressures tended to restore some of the emphasis on price stability, but with no noticeable diminution in emphasis on employment objectives. An unexpectedly rapid increase in population reinforced the view that maximum employment could be sustained only within the framework of economic growth. Today we have three widely accepted objectives: (a) Price stability; (b) avoidance of instability in production, employment, and income; and (c) sustained economic growth. The last two, however, tend to merge into a single objective, as a static stability persisting for any extended period would be generally regarded as unsatisfactory.

MEANING OF OBJECTIVES

Although the meaning of stable prices, business stability, and economic growth is clear in a general way, these objectives need to be translated into more specific terms to serve as a useful basis for implementing economic policies.

How much variation in the price level is consistent with price stability? What range of fluctuations in production, employment, and income is permissible if we are to have an acceptable degree of economic stability? Is stability at literally maximum levels of production, employment, and income a feasible objective, or would persistent efforts to achieve the highest possible levels be likely to produce such inflationary distortions as to be self-defeating? Does full employment mean that no one should be unemployed involuntarily? Is unemployment involuntary if a workman is unwilling to take a different type of job or somewhat lower pay? In a free-enterprise economy, there will always be some unemployment as manpower and productive facilities shift to meet changing demands and changing technology. What ratio of unemployment is consistent with maximum sustainable employment—2 percent, 5 percent, or some other percentage of the labor force? Since the labor force is a variable quantity, is the percentage of unemployment of varying significance at different times?

Similar questions arise in trying to put economic growth in more specific terms. To be meaningful, growth should be in real terms, not a growth in dollar volume inflated by rising prices. Growth results in a rising standard of living only if it is sufficient to provide an increase in per capita output and real income. Granting that real per capita output is the goal, what rate of growth should be our objective? Is an average annual rate of 1 or 2 percent satisfactory, or should we seek more?

There is no precise definition of objectives that would be appropriate under all circumstances. It should be recognized, however, that the higher we set our goals the more difficult it is to achieve them, individually or in combination.

INTERRELATION OF OBJECTIVES

Price stability, business stability, and economic growth are closely interrelated.

In principle, stable prices, business stability at high levels of production and employment, and economic growth are mutually consistent. In practice, inconsistencies may at times develop. Excessive expansion or contraction in major sectors of the economy tends to be accompanied by inflationary or deflationary tendencies; too much emphasis on one objective may impair ability to achieve the others.

Rising prices usually lead to waste, inefficiency, misdirected use of resources, and, eventually, to a boom which ends in depression. On the other hand, rapidly falling prices are almost invariably accompanied by declining production, idle plants, and unemployed labor. A considerable degree of price stability (or, perhaps, even gradually declining prices), therefore, would appear to be an essential, although not a sufficient, condition for achieving business stability and steady economic growth.

Reasonably full employment is also consistent with achieving sustained long-term growth. Unemployment and idle facilities represent a waste of economic resources. On the other hand, attempts to maintain employment at a maximum level without regard to price stability may inhibit economic growth. In a dynamic economy, resources are continually being shifted from declining to expanding industries; improved machinery and techniques replace the old and obsolete. Such changes are essential for increasing efficiency and promoting economic growth, but they may also result in temporary unemployment. Efforts to prop up declining industries or to delay the introduction of improved techniques as a means of preventing unemployment prolong relatively inefficient methods of production and retard the rate of economic growth. Attempts directed primarily toward maintaining employment at a maximum level also create an economic climate which is not conducive to the most efficient use of productive resources. When demand is pressing against capacity, the emphasis is on getting more output. Costs and prices are a secondary consideration.

Inflation, formerly considered predominantly a wartime problem in this country, has become a threat in peacetime. Several developments have contributed toward making inflation a threat in peacetime. Governments have assumed responsibility for maintaining "maximum" employment. Collective bargaining has become a powerful force in determining wage rates. Several important industries are dominated by a few large companies, and the prices of their products do not respond readily to the free play of supply and demand. Fear of "creeping" inflation has led to protective devices such as escalator clauses which, by their nature, tend to perpetuate it.

It is extremely difficult, if not impossible, to keep aggregate demand strong enough to maintain full employment without spilling over into rising prices, especially with the close interrelationship between wages and prices under our present institutional structure. An increase in prices generates intense pressure for higher wage rates. Under con-

ditions of full employment, a wage increase can easily be passed along in the form of higher prices. Thus, an increase in either prices or wage rates tends to initiate a rising price-wage or wage-price spiral. For these reasons, attempting to maintain full employment is like trying to walk a tight rope—there is constant danger of slipping into slowly rising prices and long-run inflation.

Fear of inflation has led to devices to protect real income from the erosion of rising prices. Some wage contracts tie wage rates to the index of consumer prices. Once prices begin to rise, regardless of the initial cause, wage rates increase automatically. If wage increases were limited to cost-of-living adjustments of modest proportions, so that they could readily be absorbed by increased efficiency of production, no further impetus to the price increases should result. And, as further efficiencies were achieved, costs would be lowered, so that real wages could be increased through price reductions. But when cost-of-living wage increases are added to basic wage increases that fully match or exceed increases in productivity, the tendency is to set in motion an upward spiral of costs and prices. In fact, as the experience of a number of countries has demonstrated, escalator provisions in wage arrangements can perpetuate a wage-price spiral of ever-increasing intensity, with the result that the currency approaches worthlessness at an accelerating rate.

Although the wage "escalator" clause is best known, other devices have a similar effect. Some countries have issued "purchasing-power" bonds, the amount of interest and sometimes the principal being tied to the price index. Cost-plus contracts also tie contractual income to prices. With no incentive to cut costs, rising prices are likely to be fully reflected in higher costs and in a larger fee as well. Escalator clauses and similar devices, because of the accelerating effect once prices begin to rise, make it more difficult to achieve price stability. It remains to be seen whether escalator clauses will be retained and, hence, have similar effects in a period of declining prices.

The fact that our present economic environment facilitates operation of the wage-price spiral does not mean that inflation is inevitable. Wage increases are inherently inflationary when in excess of the rise in productivity for the economy as a whole, and it is problematical whether, under all circumstances, action to limit credit and the money supply and, thus, to make more difficult the financing of business at the higher price level can prevent a wage-price spiral from continuing to push prices upward. However, credit restraint, properly timed, can be of great value in minimizing and possibly preventing or halting an upward spiral. The longer a spiral is permitted to continue, the more difficult it becomes to halt it without precipitating a decline in production and employment.

Policies directed toward maintaining maximum employment may result in long-run inflation, even though a continual rise in prices is avoided. Recurrent booms may push prices upward. On the other hand, because of prompt actions to stimulate production and restore full employment, periods of recession may be accompanied by a halt to the rise, but little, if any, decline in prices. With prices moving upward from a higher base following each recession, the long-run trend would be a ratcheting upward movement in the price level. Too much emphasis on full employment may prevent the effective restraint necessary to maintain price stability.

Success in promoting stability of prices and in avoiding wide fluctuations in production, employment, and income, however, will in general provide an economic atmosphere conducive to maximum economic growth—the third objective of economic policy. In a market economy, the forces that promote economic progress on the part of the individual are in general the same forces that foster a rising standard of living for society as a whole. While this view does not deny that Government policies may accelerate economic growth it does recognize that the major impetus for growth stems primarily from the efforts of individuals to promote their own well-being, within the framework of a stable economy, rather than concerted efforts of the Government to elevate growth to a major objective of public policy.

Aside from the promotion of stability in prices and business activity, the contribution of public policy to economic growth lies mainly in fostering competition in the economy. Competition is a strong stimulant to growth. It sharpens interest in reducing costs, in searching out more efficient methods of production, and in discovering and applying new techniques and products. It places a premium on entrepreneurship and skills. It promotes business investment, both as a means of reducing production costs by introducing more efficient equipment and of increasing capacity to capture a larger share of the market. Competition is, in short, the major stimulant to economical use of resources, both human and material, through technological progress and by eliminating waste and inefficiency in productive processes.

Given the pace of technological advance, the rate of economic growth tends to vary directly with the proportion of economic resources devoted to capital formation. While monetary and fiscal policies inevitably affect the pace of capital formation, the precise allocation of resources between production for consumption as opposed to investment is, in a market economy, determined largely by the free choice of consumers and businesses. Experience indicates that the maintenance of reasonable stability in the value of money and prosperous economic conditions provides an atmosphere conducive to a sustained and satisfactory rate of economic growth. If this view is correct, stability of prices and business activity must be accepted as the primary goal of policy, with economic growth as a natural and desirable consequence of their successful attainment.

Moreover, it is important to recognize that, under conditions of relatively full use of our economic resources, a faster rate of growth can be achieved only at the expense of current consumption. Such a choice should generally, in our opinion, be a reflection of individual preferences rather than a Government decision.

These longer-run problems of harmonizing economic policy objectives have their counterpart in the short run. The current situation affords an illustration. The index of consumer prices has continued to rise even though production, employment, and income have been declining for several months, and recently the index of wholesale prices has been rising also. Sole emphasis on price stability would call for continued restraint to check the rise. A restrictive policy, however, would tend to intensify the decline in production and the rise in unemployment. Thus policies directed solely toward price stability would be somewhat inconsistent with maintaining business stability and a full utilization of labor and productive facilities.

When such conflicts occur, monetary and fiscal authorities should reappraise the relative significance of the various objectives and select that combination which is most appropriate under the circumstances.

RELATIVE IMPORTANCE OF OBJECTIVES

The relative importance of economic objectives varies with economic conditions. There is no ranking as to importance that is appropriate under all circumstances. The particular combination that should be pursued at a given time depends on existing conditions and a careful appraisal of the probable consequences of the policies that would be necessary to achieve each objective.

Wide acceptances of the view that inflation is a probability in peacetime appears to be based not on the conclusion that it is desirable per se or that economic instruments for preventing it are inadequate if fully used. Rather it seems to rest primarily on the premise that full employment, even though involving the threat of long-run inflation, is more desirable than the alternatives. One alternative is the use of monetary and fiscal policies with whatever vigor is required to check rising prices and prevent a decline in the purchasing power of the dollar. Another, favored by some, is to rely less on such instruments as monetary and fiscal policies and more on direct controls as a means of achieving both full employment and price stability.

It is important to recognize that pursuing policies to achieve either of these objectives will inflict sacrifices and hardships on someone. Emphasis on the employment objective, even though it results in recurrent inflation, may temporarily minimize unemployment but there is a price for someone to pay. Creeping inflation is like a termite. Working underneath a surface of prosperity, it constantly nibbles away the buying power of the dollar, favors speculative rather than constructive investment, and so undermines the foundations of growth and, eventually, may even lead to runaway inflation.

A price increase of 3 percent annually, although small in itself, would in 20 years reduce the buying power of the dollar by nearly one-half. One effect would be to wipe out a substantial part of the real value of money savings and fixed incomes. It would inflict heavy losses on millions of people with savings deposits in banks, shares in savings and loan associations, and life insurance; and impose a sharp reduction in the standard of living of those with fixed incomes, such as recipients of annuities, pensions, and other forms of retirement income. The hardship is just as real, although not so obvious, as the loss of income resulting from unemployment; and to a large extent the burden falls on those least able to bear it. Secondly, as it became clear that money savings were faced with progressive shrinkage in purchasing power, the flow of savings into savings institutions would tend to decline, there would be a shift from money and fixed-income obligations to equities and real property, speculation and waste would be encouraged, and maladjustments would be created among different types of economic activity. These developments would accelerate the pace of inflation and thus intensify the hardships imposed on much of the population. If carried far enough, it could eventually threaten runaway inflation which could lead to chaotic conditions in the economy. But even in the absence of such a culminating phase, the consequences of substantial inflation are damaging enough to warrant very strong efforts to prevent it.

Effective use of monetary and fiscal policies to help maintain price and business stability cannot be entirely painless. In essence, a restrictive monetary policy, designed to prevent spendable funds from rising more rapidly than the output of goods and services available for people to buy, limits the total quantity of credit available to borrowers. Some would-be borrowers are deprived of credit which otherwise would be available. But the limited supply is allocated among borrowers by market forces instead of by the decisions of some regulatory agency.

It is well to note that using direct controls as a means of maintaining maximum employment without inflation also has its price. Experience demonstrates that a harness of direct controls over prices and wages creates rigidities and distortions, makes adjustment to change slow and more difficult, infringes upon individual freedom, and stifles private initiative. The long-run effect is to inhibit not only the mobility of resources, but growth itself. In addition, direct controls are inconsistent with the principles laid down in the Employment Act that maximum employment, production, and purchasing power should be promoted in ways that would foster and promote free competitive enterprise.

Even more important, perhaps, is the fundamental weakness inherent in direct controls. The fact that they are needed is conclusive evidence that aggregate demand is in excess of the amount which is consistent with price stability. Their purpose is to suppress the effect of excessive purchasing power on prices. With prices controlled and supplies limited, however, money accumulates which cannot be spent for the goods people want to buy. Experience suggests that before long workers may decide that greater satisfaction can be derived from more leisure rather than more work. Inability to convert income into goods dulls the incentive to work, spawns inefficiency, and leads to conditions inimical to economic growth. Furthermore, if long continued, the accumulation of pent-up purchasing power is almost certain to lead to violations, the growth of black markets, and eventual price inflation.

Selecting the most appropriate goals of economic policy is a difficult and complicated task. General economic welfare can best be promoted, it seems, by carefully weighing the advantages and the sacrifices and hardships involved in pursuing policies designed to achieve alternative objectives. The long-run as well as the short-run effects should also be considered. Only in this way can men of judgment reach a sound decision as to the particular combination which seems most appropriate for a particular situation.

Although there is no set of rules or ranking of objectives which can always be followed, certain guides may be helpful in arriving at a decision as to the appropriate combination under given economic conditions. One factor of significance is the nature of the rise in prices or the increase in unemployment. Is the price rise accounted for mainly by temporary conditions such as crop failures and unseasonable weather? In case of an increase in unemployment, does the rise reflect largely such factors as seasonal declines in production or secular declines in industries whose products are gradually being displaced by newer ones? Monetary and fiscal policies are not appropriate remedies for price increases for particular products resulting from unusual supply or demand conditions, such as crop failures.

A second factor, as indicated above, is that when there is a conflict among objectives the advantages and disadvantages of each alternative should be weighed carefully. For example, if prices and unemployment are increasing simultaneously, the relative strength of inflationary forces and of the contractive tendencies in business activity and unemployment should be appraised. Also the loss inflicted by rising prices on those with savings and relatively fixed incomes should be carefully weighed against the more obvious hardships of unemployment.

Despite some tendency toward inconsistency among the objectives, they seem to be attainable within reasonable limits. One of the principal threats to optimum overall achievement is excessive emphasis on one objective without regard to the others. The problem is to strive for that combination which, under existing circumstances, will minimize hardship and maximize general welfare.

PART III

MONETARY POLICY, 1942-57

The goals of relatively full employment and a satisfactory rate of economic growth have been largely attained in the 16-year period ending in 1957. Stability of the price level, the third important objective of public economic policy, has not, however, been achieved. The purchasing power of the dollar approximately halved during the period, as reflected by a doubling in the consumer and wholesale price indexes. While appropriate monetary policies alone cannot be expected to achieve the objectives of economic policy, including price stability, such factors as the cost, availability, and volume of credit are of considerable significance to economic trends in general and to price level movements in particular. The purpose of the following discussion is to review monetary policy since 1942, emphasizing the inflationary characteristic of the period as a whole and the relationship of monetary policy to the rise in prices. For this purpose, the 16 years are divided into 3 periods: (1) December 1941 to mid-1946; (2) mid-1946 to mid-1951; and (3) mid-1951 to 1957.

DECEMBER 1941 TO MID-1946

At the outbreak of war, the Board of Governors of the Federal Reserve System announced that the primary objective of the System during the war would be "to assure that an ample supply of funds is available at all times for financing the war effort and to exert its influence toward maintaining conditions in the * * * Government security market that are satisfactory from the standpoint of the Government's requirements." During 1942 an additional objective attained a major position in Federal Reserve policy. This second objective was to encourage the repayment of debts and the use of increasing amounts of the incomes of individuals for financing of the war, thus helping to counteract inflationary pressures.

This second objective was promoted through the administration of consumer credit controls and efforts to encourage nonbank purchases of Government securities and to avoid unnecessary credit expansion. Nevertheless, the decision to assure an ample supply of funds for war finance, and to finance the war at low and stable rates of interest, in effect relegated control of inflation to a position secondary to the objective of facilitating war finance. While it was recognized that some inflation was inevitable, it was also believed that rationing and direct controls over prices, wages, and output, coupled with selective control of consumer credit through regulation W, would minimize price increases during the war. That this view was substantially correct is indicated by the relatively mild increase of 11 percent in consumer prices between mid-1942, when the machinery of direct control had been largely established, and the end of the war. It is important to note, however, that the increase in the price index under-

states the degree of inflation, in view of the growth of black markets and the substitution of nonstandard and inferior products for standard products.

Two major operating policies were adopted early in the war to promote the System's primary objective. They were: (1) an official commitment on the part of the Federal Reserve banks to purchase all United States Treasury bills that might be offered at a rate of three-eighths of 1 percent, coupled with an agreement to resell the bills to the vendor any time before maturity at the same rate; and (2) purchases in the open market to prevent yields on longer term Government securities (certificates, notes, and bonds) from rising above predetermined levels. Successful implementation of these policies resulted in the establishment of a pattern of rates on Government securities, ranging from three-eighths of 1 percent on 91-day Treasury bills to $2\frac{1}{4}$ percent on the longest term bonds (at that time, 30-year maturity). To facilitate further the financing of the war, two additional operating policies were adopted. They were the establishment of a preferential discount rate of one-half of 1 percent for advances secured by short-term Governments, and reductions in Reserve requirements of central Reserve city banks.

Once investors and other market participants became convinced that rates would not be permitted to rise above the levels selected early in the war, the attainment of the primary objective of monetary policy during the war was assured. In effect, the maintenance of a low and stable structure of interest rates (1) encouraged prompt buying of securities by investors, who might otherwise have awaited higher rates; (2) assured a strong and steady market for outstanding securities; (3) kept down the interest cost on the war debt; and (4) limited the growth in bank and other investors' earnings from their public debt holdings.

Unfortunately, the failure to raise a greater proportion of the funds required for financing the war through taxes and sales of securities to genuine nonbank investors, and the resulting rapid expansion of bank credit and the money supply, contributed to inflationary pressures, both current and latent. Only 40 percent of the funds obtained to finance the war were raised through taxation. The war loan drives, while appearing on the surface to have resulted in the sale of large amounts of securities to genuine nonbank investors, actually relied significantly on bank credit expansion for their success. The Treasury offered nothing but short-term securities for subscription by commercial banks after the third war loan, and only limited amounts of longer term securities in the preceding drives. Consequently, the banks subscribed to short-term securities, sold considerable amounts to the Reserve banks, and then bought the longer bank-eligible securities in the market above par, thus permitting speculatively inclined, nonbank subscribers to make a quick profit and again subscribe to large amounts in the next loan. In addition, the relatively low yields on bills and certificates exerted strong pressures on banks and other investors to liquidate these instruments, which the Federal Reserve had to purchase in order to maintain the rate pattern, and to use the funds thus acquired to purchase longer term, higher yielding securities. While most of the reserves supplied in this manner were absorbed by an increase in currency in circulation and an outflow of gold, a substantial volume was used to support the

expansion of bank investments and, consequently, promoted inflationary growth of the money supply.

Although the shifting process could have been discouraged and perhaps eliminated by permitting short-term rates to rise relative to longer term yields, Treasury officials were reluctant to agree to any breach of the rate pattern. Even though the shifting process gained momentum in the later stages of the war and did not cease until about mid-1946, it was not until the summer of 1947 that yields on Treasury bills and certificates were permitted to move higher. In the meantime, the overall technique of war finance and the resulting excessive monetary expansion, together with wartime shortages and accumulated demands, laid the basis for a sharp increase in prices of goods and services once price controls and rationing were suspended in 1946.

MID-1946 TO MID-1951

Throughout most of the period from mid-1946 until the consummation of the Treasury-Federal Reserve accord in early 1951, Federal Reserve authorities were confronted with the task of reconciling two conflicting objectives. Briefly stated, these objectives were, on the one hand, to utilize general instruments of credit control in an orthodox manner to restrain inflationary pressures and, on the other hand, to maintain stable and orderly conditions in the Government securities market.

The importance of the first objective is emphasized by the fact that from the beginning of the period until the latter part of 1948, and again in the latter part of 1950 and in early 1951, inflationary pressures were severe. In the earlier period, the pressures resulted primarily from the huge volume of liquid assets built up during the war and the accompanying shortages of goods and deferred demands. In the latter period, the outbreak of fighting in Korea, which followed closely upon recovery from the mild recession of 1948-49, stimulated business and consumer spending in expectation of greatly expanded military expenditures and in fear of renewed shortage of goods. Under each of these circumstances, orthodox principles of central banking would have called for a restrictive credit policy. While some inflation was no doubt inevitable in each instance, an effective restrictive policy would have limited inflation by reducing the attractiveness of liquidating Government securities in order to purchase goods and services or, in the case of banks and other financial institutions, in order to engage in credit extension to private borrowers.

Adoption of an orthodox restrictive policy would, of course, have necessitated the abandonment of the policy of maintaining a stable market for Government securities. Flexible credit policies require flexible interest rates, which in turn mean that prices of debt instruments, including Government securities, must be free to fluctuate with market forces and those emanating from the actions of the central bank. So long as prices of Government securities were supported at relatively high prices, holders of the instruments were in effect invited to liquidate their Governments at attractive prices. In essence, the Federal Reserve acted as a passive buyer of Governments and, in the process, supplied additional reserves to the market on the initiative of holders of Government obligations.

There was, on the other hand, grave concern as to the effect of abandonment of par support on the market for existing Government securities, the Treasury's refunding operations, and the state of business in general. Such action, it was believed, might precipitate disorderly conditions in the Government securities market. Lower and fluctuating prices for Government securities would have complicated Treasury refunding operations, and the higher interest rates that no doubt would have occurred would have increased the cost to the Treasury of servicing the Federal debt. In the early postwar period, it was feared that abandonment of par support might precipitate a crisis in the security markets generally and interfere seriously with the reconversion and expansion of industry. After the initial reconversion phase, there were recurrent fears of a postwar depression.

These latter arguments, while perhaps appearing less convincing today in view of the relative ease with which the par support program was terminated in 1951, were of considerable significance in the early postwar years. It should be recalled that, at the time, large amounts of Government securities were in the hands of more, or less, impermanent holders—financial institutions and other investors who had purchased the securities for patriotic and other reasons during the war, and who were anxious to liquidate the securities to obtain funds for other purposes. It is, therefore, quite possible that chaotic conditions in the market for Government securities would have developed had the System attempted to abandon the par support program.

In view of these considerations, the System attempted to reconcile the conflicting objectives by combating inflation through actions that did not necessitate the abandonment of the support program. Thus, despite purchases of \$10 billion of Treasury bonds in the 12 months ended October 1948, total Federal Reserve holdings of Government securities increased only \$1 billion (the \$1 billion of net purchases was more than offset by an increase in reserve requirements in September 1948). The difference of \$9 billion resulted partly from System sales of shorter-term Governments to investors other than commercial banks, mutual savings banks, and insurance companies, which was made possible by the rise within the pattern of yields on these securities; and partly from the Treasury's program of debt retirement out of surplus funds, which was concentrated in maturing securities held by the Reserve banks.

Other actions taken by the System to limit inflation included (1) an increase in Reserve bank discount rates from 1 to 1½ percent in January 1948 and to 1¼ percent in August; (2) appeals to bankers to exercise caution in lending policies, to curtail speculative loans, and to guard against overextension of consumer credit (regulation W was inoperative from November 1947 to November 1948); and (3) requests for additional powers over member bank reserves, including authority to raise existing requirements to higher levels and to prescribe secondary reserve requirements for member banks. It is doubtful that these actions had much effect. The discount mechanism was in a state of disuse inasmuch as banks could easily adjust reserve positions cheaply and efficiently in the Government securities market. Appeals to bankers had to compete against customer pressure and a strong profit pull toward private credit extension, not to mention the difficulty confronting bankers of distinguishing essential from nonessential credit demands. Requests for additional legislative authority re-

ceived no action until the summer of 1948, when Congress renewed the authority for regulation W and granted the Board of Governors temporary authority to raise member bank reserve requirements above existing statutory limits. The Board promptly raised reserve requirements and reinstituted consumer credit control. As it turned out, inflationary pressures had begun to subside in the summer of 1948, and thus the additional powers were bestowed too late. The decline in inflationary pressures was, however, not evident at the time.

With the changed economic situation that became apparent in early 1949, System authorities took action to ease credit, including reductions in margin requirements, instalment credit terms, and member bank reserve requirements. However, concern with the stability of prices of Government securities led to substantial System sales of the instruments between January and June 1949 as market demands for Governments increased. In late June, the Federal Open Market Committee announced that, after consultation with the Treasury, it had been decided that purchases, sales, and exchanges of Government securities would be undertaken with primary regard to the general business and credit situation. It was pointed out that the policy of maintaining orderly conditions in the Government-securities market would be continued but that, under conditions existing at the time, "the maintenance of a relatively fixed pattern of rates has the undesirable effect of absorbing reserves from the market at a time when the availability of credit should be increased." The statement was widely hailed as marking the return of the System to flexible monetary policies.

Support operations were again undertaken, however, following the outbreak of fighting in Korea in the summer of 1950. Although the System attempted to restore flexibility to monetary policy in August, when discount rates were raised, the Treasury opposed such action. The necessity for supporting Treasury refunding operations in August and during succeeding months forced the Federal Reserve to absorb large amounts of shorter term securities and to support long-term bond prices. Banks, insurance companies, and other financial institutions began to liquidate Governments in large volume in order to obtain funds to support private credit extension. Later, other holders began to sell Governments, particularly longer term issues, because of fear that their prices would later decline. In supporting the market, the Federal Reserve between August 1950 and the end of the year purchased \$8 billion of maturing Governments, \$1 billion of restricted bonds, and \$1.4 billion of short-term securities. Sales of short-term Governments in the amount of \$7 billion partially offset these purchases. In January 1951, as support purchases continued in large amount and as seasonal factors were adding substantially to bank reserves, member bank reserve requirements were increased.

It was clear that the net System purchases were contributing to inflationary pressures by keeping interest rates low and credit readily available, and by adding to the reserves of the banking system. Loans of commercial banks increased \$7.5 billion during the latter half of 1950 alone. Prices of goods and services rose rapidly, reflecting heavy buying by individuals and businesses in fear of war-induced shortages. Moreover, there was considerable public discussion of disagreement between the Treasury and the Federal Reserve. The need was imperative for an agreement to restore harmony between

the two agencies and to permit the System to pursue flexible monetary policies suited to the general business and credit situation. The result was the Treasury-Federal Reserve accord, announced jointly by the Secretary of the Treasury and the Chairman of the Board of Governors and of the Federal Open Market Committee on March 4, 1951.

The terms of the accord that provided the basis for restoration of flexible monetary policies were as follows:

(1) In order to remove a substantial portion of the long-term Government bonds that were overhanging the market, the Treasury agreed to offer in exchange for certain long-term marketable issues a long-term, nonmarketable bond that would be convertible at the holder's option into a marketable Treasury note.

(2) The Open Market Committee pledged that it would, in effect, support the exchange operation by making limited purchases of any long-term bonds that private holders might try to sell after the terms of the exchange offering were announced. It was specified, however, that "the situation would be assessed daily," that "the market would be kept orderly," and that "open market purchases, if any, would be made on a scaledown of prices."

(3) It was agreed that in order to hold to a minimum the reserve-creating purchases of short-term Governments, the Federal Reserve "would immediately reduce or discontinue purchases of short-term securities and permit the short-term market to adjust to a position at which banks would depend upon borrowing at the Federal Reserve to make needed adjustments in their reserves." It was thought that this action would result in renewed use of the "discount window" as an avenue for obtaining Federal Reserve credit and, as a consequence, greater reliance on discount policy as a device of credit control. Short-term interest rates would, it was believed, tend to fluctuate around the discount rate. The Federal Reserve agreed, however, not to raise the discount rate (then 1½ percent) during the remainder of 1951.

(4) Federal Reserve authorities pledged that their operations would be designed "to assure a satisfactory volume of exchanges in the refunding of maturing Treasury issues." The Open Market Committee would, in other words, support Treasury refunding operations to ease the readjustment.

Although the Federal Reserve continued to purchase substantial amounts of Treasury bonds for a time following the accord, the bonds were purchased on a gradually declining scale of prices. The amounts purchased declined and within a few weeks purchases ceased. Following the accord, purchases of short-terms were promptly discontinued. Short-term rates, reflecting the termination of System purchases, rose sharply at first, but thereafter tended to move with market forces. Banks began to use the discount facility to adjust reserve positions. Under these conditions it was possible to pursue flexible monetary policies, even though support for Treasury financing operations was afforded from time to time until late 1952.

In evaluating Federal Reserve credit policies during the years 1946-51, it is important to note that by far the larger portion of the

early postwar inflation (in the period 1946-48) occurred before the problem of par support became acute in late 1947. Between early 1946 and the end of 1948 consumer prices rose 32 percent. However, four-fifths of the increase took place before the final quarter of 1947, reflecting the removal of direct controls in 1946, and it was not until late 1947 that the System began large-scale purchases of long-term Governments in order to support their prices. Thus, most of the inflation that occurred in 1946-48 resulted from earlier actions—namely, the manner in which the war was financed, and the resulting monetary expansion—and the huge accumulated demands for goods and services both here and abroad.

Nevertheless, hindsight supports the judgment that earlier return to more flexible monetary policies would have been desirable. Had it not been for the substantial Treasury surpluses in 1947 and 1948, totaling almost \$14 billion, and the use of a large portion of the surplus funds to retire maturing securities at the Federal Reserve banks, control over the Reserve position of the banking system would have been much more difficult. The willingness of the System to monetize longer term Government securities by creating Federal Reserve credit at relatively low rates of interest undoubtedly interfered with efforts to restrain inflationary pressures. The success of the offsetting policies should not, however, be underestimated. Despite the support operations, the volume of bank credit and the money supply actually changed little in 1948.

Even more important is the judgment that failure to restore flexible monetary policies earlier in the postwar period led inevitably to reliance on support techniques following the outbreak of fighting in Korea. While much of the earlier postwar inflation was beyond the practicable influence of monetary policy, the same was less true in late 1950 and early 1951. The post-Korean inflation, while resulting partly from a more active use of the money supply as consumers and businesses rushed to buy in expectation of shortages and higher prices, was also supported strongly by credit expansion; and the credit expansion was facilitated by Federal Reserve creation of reserves as an adjunct to the support program.

MID-1951 TO 1957

Monetary policy during most of the period since the accord has been directed primarily toward restraining inflation. Pressures on the supply of labor and other resources, arising from a high level of defense expenditures and strong consumption and investment demands, have tended, except for a brief period in 1953-54 and again recently, to push prices higher. Between mid-1951 and the end of 1957, consumer prices rose 10 percent, with more than half of the increase occurring in 1956 and 1957.

Balance between aggregate demand for and supply of goods and services was reasonably well maintained in 1951 and 1952, even though consumer prices advanced during the period. This increase stemmed primarily from rising rent and transportation costs and largely reflected the culmination of inflationary pressures that had been built up before the establishment of price and wage controls in early 1951 and before the accord.

Flexible administration of general credit controls, coupled with other important factors, helped promote stable growth in 1951 and 1952. Among the other factors were the various selective and direct controls, including regulation of consumer and real-estate credit, the voluntary credit restraint program, and price ceilings and allocation of scarce commodities; increases in taxes that offset, in part, rising Government expenditures; and, by mid-1952, a retardation in the rate of growth of defense expenditures.

Following the accord, and throughout most of 1951 and 1952, Federal Reserve actions were designed to minimize inflationary credit expansion while at the same time facilitating the readjustment of the Government securities market to termination of support. In addition, and in keeping with the terms of the accord, the System afforded direct support to Treasury refunding operations. Although purchases of Governments during such periods were substantial, the System was able to offset most of the acquisitions by sales or redemptions of short-term Governments. Thus, between mid-April and November 1951, purchases of \$300 million of long-term bonds and \$1.5 billion of short-term issues were almost wholly offset by liquidation of \$1.7 billion of short-term Governments. The same technique, which was possible only because the System was no longer pledged to maintain stable prices for Government securities and could therefore operate flexibly in the market, was used in February, June, August, and September 1952. Reflecting the effects of the termination of the support program, sustained demands for funds in the market, and the generally restrictive monetary policies, interest rates on Government securities, corporate issues, and other debt instruments rose irregularly through 1951. In 1952, bond yields tended to level out, but short-term Government rates continued to increase. By the end of the year, interest rates generally were at the highest levels since the 1930's.

Inflationary pressures began to mount in late 1952 and early 1953, as defense expenditures rose further and consumer and business demand expanded. With credit demands strong and the economy operating close to capacity levels, the System exercised restraint in order to prevent excessive use of bank credit and inflationary expansion of the money supply. Member bank borrowing from the Federal Reserve banks rose, interest rates increased and, in January 1953, the Reserve banks increased their discount rates by one-fourth point, to 2 percent, in confirmation of the rate structure that had developed and to increase the cost of borrowing to member banks.

With the development of strains in the money and capital markets in the late spring of 1953, System credit policy was reversed, as manifested by substantial purchases of Treasury bills in May and June and a reduction in member bank reserve requirements in July. At the same time, business activity leveled out, and then declined, primarily as a result of sharp cutbacks in defense expenditures and an accompanying shift by businesses from accumulation to liquidation of inventories. Throughout the remainder of 1953 and during all of 1954, monetary policy was directed toward ease in order to cushion recessionary tendencies and to provide a monetary and credit atmosphere conducive to recovery.

The recession was both mild and short-lived, partly because basic forces of demand remained strong, and partly because easy avail-

ability of credit at low interest rates provided the basis for rising construction activity and, in late 1954 and early 1955, a resurgence of consumer spending for automobiles and other durable items. It is important to note that actions taken by the monetary authorities in 1954, including open market operations designed to make bank reserves freely available, two reductions in discount rates to a level of $1\frac{1}{2}$ percent, and an additional cut in member bank reserve requirements, contributed significantly to the liquidity of the economy generally and of the banking system in particular. Confronted with reduced demands for loans, banks used the additional reserves made available through Federal Reserve action to increase sharply their holdings of Government and other securities. Between May 1953 and November 1954, total investments of commercial banks rose more than \$14 billion, with Governments accounting for almost \$12 billion of the increase.

As the first signs of economic recovery emerged in late 1954, the System permitted bank reserve positions to firm slightly in response to rising credit demands. Reflecting the widening of the recovery movement, credit demands continued to rise in early 1955. The System permitted bank reserve positions to tighten further and, in April, the Reserve banks raised their discount rates one-fourth point to $1\frac{1}{2}$ percent, increasing the cost of borrowing to member banks and bringing discount rates into better alinement with market rates. This rate increase was a straightforward indication to the business and financial community that monetary policy had been shifted toward restraint as contrasted with the policy of ease that had been followed in the second half of 1953 and in 1954. Meanwhile, there had been a rapid increase in the use of credit for purchasing and carrying securities, and margin requirements were increased in January and again in April.

By the time of the discount-rate increase in April 1955, most of the slack that had developed in the economy in 1953-54, as reflected in ready availability of labor and other economic resources, had been eliminated. Pressures on costs and prices intensified as aggregate spending continued to rise. The accompanying demands for credit, in the face of inadequate savings and the gradually increasing restrictiveness of monetary policy, forced interest rates higher. The Federal Reserve banks increased their discount rates in 6 steps, reaching a uniform level of $3\frac{1}{4}$ percent in August 1957. Despite these policies, wholesale prices began to rise in the middle of 1955 and consumer prices in early 1956. The rise in consumer prices continued, almost without interruption, through 1957.

Monetary policy was once again shifted toward ease in the final quarter of 1957. With the abatement of inflationary pressures and the accompanying decline in loan demand in the fall, bank reserve positions were allowed to ease slightly in the latter part of October and early November. Then, as additional economic and financial data confirmed that the peak of business activity had been passed and that recessionary forces were developing, the Reserve banks reduced their discount rates by one-half point to a level of 3 percent. Financial markets responded dramatically to this clear signal that monetary policy had been adjusted to the changing business situation and, by the year end, pressures on bank reserves had been eased considerably and yields on Government and other debt obligations had declined

markedly from earlier peaks. Easing actions were continued in early 1958, as business continued to decline, as reflected in significant easing in reserve positions of member banks and reductions in margin requirements, discount rates, and member-bank reserve requirements.

The preceding review indicates that monetary policy has been flexibly administered in the 7 years since the accord. A major question of interest, however, is whether the price inflation that occurred in 1956 and 1957 could have been wholly or partly avoided had Federal economic policy, including monetary policy, been administered differently. It is, of course, impossible to know precisely what would have occurred had different policies, in fact, been followed. It is reasonable to assume, however, that fiscal policies resulting in larger cash surpluses in fiscal years 1956 and 1957 would have helped restrain inflationary pressures. These surpluses could have been used in such manner as to limit the spending power of the private sector of the economy. In addition, the Treasury's financing problems would have been reduced, thereby facilitating the administration of a restrictive monetary policy.

In retrospect, there is little doubt that the direction of monetary policy was generally correct through the 7-year period. There is some question, however, whether the policy of ease was carried too far in 1954, when a combination of open-market operations and reductions in discount rates and reserve requirements pushed available reserves of member banks to high levels and short-term interest rates to exceedingly low levels. As noted above, commercial banks utilized a large portion of the available reserves to purchase Government and other securities. While this action cushioned the recession and provided a basis for recovery by promoting growth in the money supply, it also contributed to the growth of liquidity in the banking system. Consequently, when policy was shifted toward restraint in 1955, and gradually became more restrictive through 1955 and in 1956, commercial banks were in a position to meet demands of consumer and business borrowers by liquidating Government ^{securities} and extending loan credit.

There also is some question whether the System moved fast enough in exercising restraint in the early and intermediate stages of the boom. Granted that a somewhat less easy policy in 1954 would have reduced commercial-bank purchases of securities at that time, even the excessive liquidity existing at the beginning of 1955 might have been absorbed more quickly, and credit expansion thereby restrained further, had policy been tightened faster in 1955.

That the record bank-loan expansion that occurred in 1955 and 1956 was an important factor in the inflationary push is indicated by continued expansion in business activity and rising prices, despite the restrained growth of the money supply during the period. The active-money supply, consisting of adjusted demand deposits and currency outside banks, increased only 3 percent in 1955 and about 1 percent in 1956. The rate of use of the existing money supply, however, increased markedly during the period. The increase in velocity was facilitated by the liquidation of bank investments, particularly Government securities, the concurrent extension of private credit to business and consumer borrowers, and rising market rates of interest. This type of shift, within the framework of a stable or slowly expanding money supply, tended to be accompanied by an

increase in money velocity as the recipients of the bank loans used the funds to spend for goods and services. During 1955 and 1956, a more restrictive credit policy might have curtailed the shift from bank investments to loans and restrained total spending.

These judgments, it should be strongly emphasized, are possible only on the basis of hindsight. It should be recalled that, in 1953-54, there was concern lest the recession deepen and lead to large-scale reductions in output and employment. There was, at the time, little protest that monetary policy was being carried too far in the direction of ease. It is even more important to recall developments in late 1954 and in 1955. The recovery from the recession of 1953-54 moved much faster than was generally expected; there were still doubts in early 1955 that the recovery was firmly established, and there was considerable apprehension that a move toward tighter credit at a faster pace might halt the recovery short of its full potential. Much of the economic data available currently in the first two quarters of 1955 seriously understated the extent of the recovery up to that time. It was only later, when revisions of statistics became available, that the rapidity of the upturn became apparent. Moreover, it should be recalled that, at various times during the boom period, forces emerged that seemed to indicate a levelling off in business activity, or even an imminent decline. It is only through hindsight that the need for a more restrictive policy in the early stages of the boom seems clear.

PART IV

FISCAL AND DEBT MANAGEMENT POLICY

The comments that follow are submitted in an effort to be responsive to the committee's questions concerning fiscal and debt management policies, even though such policies are not within the area of responsibility of the Federal Reserve System. The discussion is intended to be theoretical and analytical, rather than to recommend any specific policies or courses of action.

FISCAL POLICY

In principle, the view is widely held that fiscal policy should be conducted in an anticyclical manner, with Government revenues exceeding expenditures in boom periods, and expenditures exceeding revenues in periods of recession, so as to help compensate for major swings in private spending. To some extent this now tends to occur automatically under our present fiscal system, as most of the major types of taxes tend to produce greater revenues in periods of expanding activity, income, and private spending, and considerably smaller revenues in periods of declining activity. Furthermore, under continuing programs some types of expenditures tend to contract in prosperous times and to increase in periods of recession. For example, disbursements from unemployment trust funds, grants-in-aid to the States for public assistance, and to some extent old-age benefits decline in periods of expanding business activity, and increase in periods of recession and rising unemployment.

To be most effective as an anticyclical influence, however, the automatic variability of receipts and expenditures in response to changes in economic conditions may need to be reinforced by active efforts to restrain Government expenditures when private (business and consumer) spending is high and to accelerate governmental projects when private spending is declining. Similarly, to the extent that tax reduction is possible within the framework of a budget balanced (on a cash basis) over the full cycle, the reductions would be most conducive to economic stability if effected when recessionary tendencies prevail. And if increased taxation is required to achieve overall budgetary balance, the tax increases would best be effected in periods when expansive and inflationary tendencies prevail.

Furthermore, different types of expenditures and receipts have different economic effects. Government expenditures that require large amounts of materials and labor, such as public works, public housing, and highway construction, and of course direct or indirect subsidies, would be most useful in promoting steady growth of the economy if they could be concentrated in periods of recession.

In the field of taxation, similarly, some types of taxes are believed to bear more heavily on consumer spending, while others are believed

to bear more heavily on saving. For example, broadly based taxes such as excise taxes (especially retail sales taxes) and the "normal" income tax are considered to have greater impact on consumer spending than on saving, whereas the progressive surtaxes are considered to have greater effects on saving. The actual effects of such taxes on spending and saving, however, are not measurable. The economic effects of corporation taxes also are very difficult to measure. The corporation income tax is commonly considered nonregressive. There is generally a strong tendency, when tax reduction is considered desirable to exert a stimulating effect on the economy, to place primary emphasis on reductions in personal income and excise taxes. But it is questionable to what extent the corporation income tax is actually nonregressive. The fact that the average ratio of net income after taxes to invested capital in recent years has been much the same as in earlier periods of high activity, when tax rates were much lower, would seem to suggest that corporations in general have been able in fixing selling prices to treat the tax on profits as an item of cost and so to pass the tax along to customers.¹

OUR PRESENT FISCAL SYSTEM

The current levels of expenditures and receipts have made the fiscal policy of the Federal Government a far more important influence on the economy than in earlier days. Government receipts have taken between 20 and 25 percent of total national income in recent years, and Government purchase of goods and services have accounted for 11 to 15 percent of total gross national product, in addition to which large amounts have been returned to the public through transfer payments and interest on the public debt. Sizable variations in Government expenditures or in Government receipts, therefore, can have profound effects on the economy. In the recession of 1953-54, for example, the curtailment of Government expenditures following the end of the war in Korea accounted for a much larger part of the decline in gross national product than the net decline in private expenditures. On the other hand, the substantial tax reductions of 1954 undoubtedly helped to promote early recovery from the recession. And in 1949, the increase in Government defense and other expenditures, together with a reduction in tax collections, went far toward offsetting the decline in business inventory and other investment and stimulating consumer spending.

Over the postwar period as a whole, the budgetary positions of the Government—in the sense of the overall balance between total payments and total receipts—does not appear to have been a major inflationary influence. The delayed effects of the huge wartime deficits, together with the shortages of civilian goods that accumulated during the war, were probably the most important inflationary forces in the early postwar years, 1946-48. In fact, the large cash surpluses in calendar years 1947, 1948, and 1956 were helpful in restraining the inflationary tendencies of those years, and the smaller surpluses in 1951 and 1957 were at least on the right side of the line. On the other hand, the deficits of 1952 and 1953 contributed to the inflationary

¹ It is sometimes argued that, to the extent that accelerated depreciation on plant and equipment has been permitted for tax purposes, corporation profits in recent years have been understated. On the other hand, it is argued with at least equal force that far more generally the practice of basing depreciation on historical cost, rather than on reproduction cost, has resulted in serious overstatement of corporation profits.

influence of real or anticipated shortages of goods (actually more anticipated than real) during the Korean war period.

But the net budgetary position, even on a cash basis, does not tell the whole story. The very magnitude of Government expenditures and the levels of taxation required to meet them have effects independent of the balance of receipts or payments. The current high levels of Government expenditures, and their tendency to follow a long-term upward trend, have made them a much more important element in the economy than in earlier years, and a fairly stable one. But even within a fairly steady total volume, shifts among the various types of expenditures can have substantial effects on particular industries or areas of the economy. For example, the shift of emphasis from military aircraft to guided missiles during the past 6 months or so has had a depressing effect on aircraft production and employment, with the eventual effects in terms of manpower and material requirements still uncertain.

Furthermore, even with a balanced budget, Government expenditures and taxes at current high levels can exert inflationary influences. For example, the corporation tax rate is so high that the effect of higher interest rates in restraining borrowing in a boom period is diluted, since it is said that "the Government pays more than half the cost." Also, incentives to efficiency and avoidance of wasteful or unnecessary expenses are greatly weakened, with inflationary effects. Quite aside from such tax aspects, it becomes extremely difficult to achieve economy and avoid inflationary influences in Government operations and procurement when the aggregate volume of expenditures is so huge. Cost-plus contracts to assure performance, unhampered by cost considerations, give Government contractors little incentive to resist cost increases as they would if their profits were at stake, and any resulting inflation of costs tends to spread through the community.

Another major weakness of fiscal policy as an instrument of national economic policy is the difficulty in obtaining timely public support and congressional action for the fiscal measures that would be most conducive to economic stability in the sense of steady, sustainable growth without inflation. It is usually difficult, except in periods of national emergency to get public support for increased taxation, especially of the kinds that would be most effective in restraining inflationary tendencies; and curtailment of Government spending finds more favor in the generality than in the specifics. On the other hand, when tax reduction or accelerated expenditure appears to be appropriate to exert a sustaining influence on production and employment, it is usually a time-consuming process to reach agreement on the types of tax reduction or of increased expenditure that will be most appropriate to the circumstances. And even if the initiation of changes is well timed, the expenditure programs adopted may attain their greatest momentum when they are no longer needed, and so give rise to new unstabilizing forces. Similarly, new taxes levied to meet the needs of a particular situation are frequently retained long after the particular circumstances that led to their adoption have passed; and tax reductions also are hard to reverse except in emergency situations.

One great difficulty is that of appraising the extent of the need for governmental intervention and how long it will be needed. Despite

all the improvements that have been made in our economic data, forecasting remains a decidedly imperfect art. The current situation may be used to illustrate the point. Insofar as the current recession represents an inventory adjustment, it should provide its own remedy within a few months. Another and more important factor, especially from the viewpoint of duration, however, is the decline in business investment in plant and equipment, following the development of excess capacity in a number of industries. Planned expansion of national defense expenditures, together with the rising trend of state and local government capital projects and a possible acceleration of residential construction, should go far toward offsetting the decline in business investment, but the relative timing and momentum of the various factors are uncertain.

Meanwhile, major questions are how well consumer spending—the largest single element in the national economy—will be sustained, and how far the curtailment of business investment will go. Recent data on consumer spending have been difficult to interpret because of the complicating influence of unusually severe winter weather in much of the country. Developments in this area, probably more than any other, will determine whether Government intervention, in the form of tax reduction or a large increase in public works, is needed to counteract the recessionary tendencies. If there is a normal seasonal pickup in such things as automobile sales and residential building during the spring months, and consumer spending generally is well sustained, and if the contraction in business investment is not accelerated, quite moderate action on the part of the Federal Government might be sufficient. On the other hand, if it should appear that consumer spending is being substantially curtailed as a result of unemployment and apprehensiveness concerning future prospects—and perhaps also by the burden of existing consumer debts—vigorous steps in the form of prompt-acting governmental measures would be indicated.

In the tax field, probably, a substantial but temporary reduction in broadly based taxes would be most effective and appropriate (temporary, in view of the prospect of a rising trend of Government expenditures and probably sizable deficits ahead). This does not necessarily mean, however, that tax reductions should be limited to personal income and excise taxes. Some forms of corporation tax reduction might also be expected to have stimulating effects on business activity and employment. For example, some countries have used variable depreciation allowances to stimulate business spending on plant and equipment in periods of reduced activity and to restrain such expenditures in periods of high activity.² And, in the expenditure field, the preferable emphasis would be on projects that have been started and can readily be accelerated, or on projects that are past the planning stage and can be put into motion rapidly. The great danger in a public-works program is that it will only attain substantial momentum after the greatest need has passed, and may then accentuate inflationary tendencies by competing with other active demands for materials and manpower—especially the latter unless care is taken to select projects that are clearly needed and are of such types and so

² In the present situation, with excess capacity in many industries, more liberal depreciation allowance on new investments in plant might not have much effect in inducing acceleration of expansion plans, but might accelerate replacement of inefficient or obsolete equipment with a view to achieving cost savings and relieving the squeeze on profits.

located as to provide employment for the unemployed. At best, public works cannot be expected to make effective use of the particular skills of many of those who are out of work.

STATE AND LOCAL GOVERNMENT FINANCE

Major-parts of State and local government expenditures, such as expenditures for education, police and fire protection, maintenance of public institutions, street and highway maintenance, and other public services are not greatly influenced by economic conditions. But there are other parts, such as the construction and improvement of public institutions and highways which ideally might be accelerated or retarded to help compensate for the wider swings in private spending, and thus exert a countercyclical influence on the economy. Practically, however, such countercyclical timing of construction projects appears to be very difficult to achieve, even though it might result in appreciable savings in costs. The principal types of State and local expenditures which tend to rise in periods of recession and to contract in periods of expansion are unemployment benefits and other forms of public assistance to the needy, much of the financing of which is done by the Federal Government. Major capital expenditures of State and local governments are usually financed by the sale of securities, rather than by current taxation, but frequently require the approval of the voters before the additional indebtedness can be assumed. And even though savings might be achieved by moving forward or postponing such projects to periods of recession, the tendency frequently is to delay them until the need is clearly urgent, and then to proceed regardless of economic conditions and costs. In fact, projects involving large expenditures are more likely to be voted down in periods of recession, since taxpayers are particularly reluctant to assume new burdens at such times, although projects previously approved are carried forward. On the other hand, shortages of materials and unfavorable conditions in the capital markets may retard such projects in boom periods. The net result has been a generally rising trend of State and local expenditures through prosperity and recession during the postwar period.

Since the fields of progressive taxation of personal income and taxation of corporation profits are so largely preempted by the Federal Government, State, and local government revenues are derived largely from real property taxes, general and specific sales taxes, and certain basic business taxes which frequently are independent of profits earned. Consequently, while they have shown a generally upward trend, they have varied only to a minor extent in response to changes in business conditions. As a result, they have tended to become more burdensome in periods of business recession, and less burdensome in periods of prosperity.

DEBT MANAGEMENT POLICY

For some years economists rather generally have urged that the management of the public debt be conducted in such a manner as to reinforce countercyclical fiscal and monetary policies. More specifically, the general policy advocated is that the Treasury place particular emphasis on the sale of long-term securities during periods of

high activity and inflationary pressures, and on the sale of short-term during periods of recession. A primary purpose would be to divert investment funds from private investment and thus restrain tendencies toward overexpansion in prosperous times, and to avoid competition for the available supply of investment funds in periods of reduced business activity and unemployment.

Furthermore, in a period of expansion the use of the proceeds of sales of long-term securities, together with the surplus revenues which an appropriate fiscal policy should provide, would be used to retire short-term debt held by the banks and others, thus reducing the liquidity of the banking system and helping to make restrictive monetary policies of the central banking system more effective. In a period of recession, the proceeds of Treasury sales of short-term securities (presumably largely to the commercial banks) would be used to meet Government deficits, and perhaps to retire long-term securities. A result could be to offset, or more than offset, the decline in bank loans characteristic of a period of recession, thus maintaining or increasing total bank credit and the money supply, and at the same time increasing bank liquidity and reenforcing an "easy" monetary policy.

The experience of recent years, however, has raised questions concerning the feasibility and, to some extent, the desirability of such a debt-management policy. In the first place, the heavy demands for capital in a period of high activity tend to make the financial markets unreceptive to long-term Treasury securities and to require the Treasury to bid up interest rates progressively if it is to be successful in diverting funds from other uses. The Treasury is likely to be severely criticized by potential borrowers (such as builders and municipalities) who find it most difficult to compete, and by others who object to the increased service charges on the public debt.

Furthermore, the increased liquidity of the banking system that results from large sales of short-term Treasury securities to the banks in a period of recession (such as 1953-54) delays and limits the effectiveness of restrictive monetary policies when inflationary tendencies again become a problem. These difficulties have led some observers to conclude that the Treasury should abandon any attempt to use debt-management policy as an instrument of national economic policy, and should be guided by market conditions in deciding upon the type and maturity of securities to be offered at any given time. In the long run, presumably the Treasury would direct its efforts primarily toward achieving wide diversification in the maturity structure of the public debt, and avoiding excessive concentration in short maturities. This would reduce the amount and frequency of refunding operations required, and thus would reduce to a minimum the interference of debt operations with the execution of monetary policy. The Treasury would not try to force long-term issues on an unreceptive market, but would ordinarily limit its offerings to short or intermediate maturities under tight money-market conditions. That, of course, would mean that the Treasury would have to do most of its long-term financing in periods of easy-money conditions, when funds for long-term investment tend to be more readily available and other demands on the capital markets tend to become less pressing.

A third alternative would be to follow an intermediate course. While avoiding attempts to float large amounts of long-term securities, and thus to withdraw funds from the private capital market in impor-

tant amounts during periods of expansion, the Treasury might try to sell limited amounts from time to time at competitive rates. If this proved successful, there would be less need for large offerings of long-term securities, designed to maintain satisfactory maturity distribution of the public debt, in periods of reduced business activity and employment. But moderate amounts of long-term financing might be done even then, the amounts perhaps depending upon the general vulnerability of business conditions and the extent of other current demands in the capital market for available savings—although this would not preclude some modest competition for savings by the Treasury against other demands. And to the extent that there was need for the financing of sizable budgetary deficits, securities designed for commercial bank subscription might well be issued in diversified maturities up to 10 years. This would facilitate an appropriate distribution of bank portfolios, and help to avoid the development of excessive liquidity in the banking system which would be likely to result from heavy emphasis on short-term financing during a period of recession. While such a compromise debt management program would be of limited use as an instrument of anticyclical economic policy, it would at least involve a minimum of interference with anticyclical fiscal and monetary policies, and should involve less difficulty than an attempt to carry out a thoroughgoing anticyclical policy—a policy which has not yet been found feasible for any extended period.

PART V

UNITED STATES MONETARY SYSTEM

The American monetary system consists at any one time of the aggregate of the moneys in use; their relationship to one another; the way in which they are created and issued, and retired, redeemed, and extinguished. The system also comprises the mechanism for facilitating and controlling variations in the quantity of money relative to the needs of our economy. The monetary system is determined by law and custom, and the different kinds of money (coin, currency, and demand deposits) are linked to one another in formal as well as substantive ways. Traditionally the monetary system is discussed in a narrow context in terms of the standard of value, the circulating currency forms, their relationship to one another and to the standard, and its equivalence in gold and foreign money. But for many years the term monetary system has been broadened to include the credit structure—demand deposits (money) and loans and investments (credit) provided by a fractional reserve commercial banking system—based upon the standard money. Thus there are at least two ways—although closely interconnected—in which the monetary system can be considered in appraising its adequacy or inadequacy for serving the increasingly specialized and interdependent sectors of our economic system.

FEATURES OF THE MONETARY STANDARD AND CURRENCY FORMS

In the narrow context, our monetary system includes a variety of relatively minor components that have been left behind as changes occurred during the financial history of the United States. It reflects our experiments with different types of monetary standards, and periods during which no metallic standard was in operation. Although the system has been simplified in recent years with the provisions in the 1930's for retiring several types of currency, it continues to be complex.

Since 1933, the Nation has been on a limited international gold bullion standard. The par value of the gold dollar is defined by law as comprising $15\frac{1}{2}$ grains of gold 0.900 fine, but gold coins are no longer issued. The price of gold in terms of the dollar is fixed at \$35 a fine ounce. Although gold is not available without restriction for domestic use, the dollar is ultimately convertible to gold in settlement of the country's international obligations. Thus, the entire credit superstructure—reflected in loans and investments—is ultimately linked to the gold base, and international convertibility is assured. The gold standard in its present form provides the general framework within which the credit mechanisms function. It sets the limits to which monetary expansion can be carried.

The monetary system of the United States with regard to currency and coin has never had a complete review to determine whether all of the various components fill a logical role and whether their conditions and use are consistent with each other.

MONEY SUPPLY AND THE MONETARY SYSTEM

The present monetary system is so organized as to permit unrestricted shiftability from one medium of exchange to another, i. e., currency to deposits, so that in general our customs have become adapted to the most convenient or least expensive methods of effecting payments for business and personal transactions. For some years it has been estimated that at least 90 percent of our total transactions have been settled through the use of checks drawn on demand deposits and the balance through paper currency and coins. An economy like that of the United States, with diversified industry, agriculture, and trade, with specialized and interdependent parts, needs not only an adequate medium of exchange in the narrow sense but also an appropriate volume of credit. Our fractional reserve banking system, by providing for the creation of demand deposits through loans and investments, relates the country's money supply to the availability of credit.

Credit instruments call for the payment of a definite sum of legal tender (which alone has complete authority to discharge the debt at a specified time). Thus, legal tender is the conventional medium through which the community maintains interconvertibility among credit forms and obligations in general. The reserves of the commercial banking system and their exchangeability for currency are the necessary mechanism by which convertibility is maintained, and the extent of expansibility in bank credit is determined. Money, credit, and banking thus become the mechanism whose main purpose is to provide a flexible means of payment to serve the needs of the business process.

GENERAL MEANING OF ADEQUACY OF THE MONETARY SYSTEM

There is probably no unanimity of opinion about what constitutes adequacy of the monetary system, but most observers would include the following criteria in any judgment: Stability of value; efficiency of the mechanism for effecting payments; responsiveness to economic change in accommodating orderly economic growth; allocation of the credit created by the banks in such a way that the Nation's resources are used effectively; and adaptability of the money creation process to control in achieving the objectives of public policy. As a minimum, the monetary system should encourage rather than hinder progress toward the achievement of these objectives.

The term stability of value is generally used to signify some constancy in purchasing power over goods. A complex economic system such as ours would not have been able to develop and function over the years without a monetary system that performed reasonably well as a store of value and means of deferred payments. Failure to perform these functions would in time have destroyed the mechanism for the exchange of goods and services essential to so complex an economy, and seriously hampered economic growth and progress. The limits of tolerance exclude both a rapid and continuous rise of the price level and a severe fall in the price level.

This is not to state that we have not at times experienced some instability in the value of money in terms of price changes, but the severe losses of purchasing power have been confined to periods of adjust-

ment to the consequences (in part financial) of war. The extreme upward surge of the price level like those of 1914-20 and 1946-48, and similarly the violent collapses such as that of 1929-33, in fact, approached intolerable limits. Monetary developments have played a role in economic fluctuations, but since the aftermath of World War II they cannot be said to have been an originating cause in the United States. During an earlier period in our monetary system—the unrestricted gold coin standard years before the Federal Reserve System—the Nation was exposed to about the same range of price fluctuation but was without the same means of flexible adaptation to change. Another connotation of stability of value is constancy of purchasing power in terms of gold and foreign currencies convertible into gold. In this sense, the dollar has been dependable and stable for many years except for a brief period in the early thirties. The United States today provides a fixed point of reference for national currencies, and this reference point is the dollar and the dollar price of gold. Our currency continues to be the most generally acceptable in the world today. The integrity of our money depends in the final analysis on the productive power of the American economy in conjunction with successful handling of our fiscal and monetary problems.

RESPONSIVENESS OF THE MONETARY SYSTEM TO ECONOMIC CHANGE

Congress created the Federal Reserve System with the power to provide the means for a flexible supply of money and credit, recognizing that elasticity in the money supply can facilitate economic change and growth and that a rigid or arbitrarily limited volume can stifle development.

The present financial institutional arrangements within the monetary system facilitate an allocation of resources among different regions, industries, and firms. The system permits funds, and the resources these funds represent, to be channeled to those areas or businesses which are able to use them most efficiently. In this respect, the present monetary system provides mobility of funds in a free market economy. Organized and interrelated as it is, it represents a cohesive whole which makes possible intensive utilization of available funds.

This flexibility has generally worked well and has assured satisfactory handling of the changing-transactions requirements of an economy whose population and labor force have increased 75 percent and whose physical volume of production has quadrupled in the 44 years since the Federal Reserve was established. The economy has also greatly altered the types of goods produced, passed through the disruption of three wars, and undergone basic shifts in regional distribution of productive capacity and population.

Over the same period, however, the economy has suffered serious depressions despite the greater flexibility of the monetary system. Each brought to light new needs, which have been recognized by Congress, not only in monetary and credit institutions and in the policy instruments available to the Federal Reserve System but also over a much broader range of public policy and responsibility. The economy, however, has suffered no major period of cumulative contraction in economic activity in the past 20 years.

The adaptability of the monetary system is also generally well illustrated over the 10-year post-World War II period, and especially since the return to a flexible monetary policy beginning in 1951. During the years 1952-57 as a whole, the economy experienced a remarkable rise in economic activity. Physical production over the entire period increased at an average rate of 4 to 5 percent per year—well above the long-term growth trend. Savings and new bank credit facilitated shifts in production and allowed productive capacity to be expanded at a rapid pace. Recurrent inflationary price developments, however, have posed a serious problem.

The ideal role of bank credit is to meet the real needs of the economy without contributing to inflationary developments as competing demands for goods and services tend to press against available resources. By and large, bank credit has filled this role. The postwar decade brought a rapid rate of technological as well as organizational improvement reflected in a high output increment per unit of capital formation. Through this period of major change, with its inherent potential for temporary distortion of the economy and strain on many prices, monetary policy has operated to limit excessive demand in the money market and in the economy in general.

The negative aspects of financial history since 1951 are reflected in the price rises which have occurred in the period since the 1954 recession. The generally strong demands for both consumer and capital goods permitted price advances of sufficient size and persistence as to raise questions as to the future value of our currency, if the recent trends were to continue. The price advances reflected primarily nonmonetary forces rather than excessive expansion of the money supply, however, and raised questions as to the feasibility of restraining them by monetary policy alone.

SIGNIFICANT NATURE OF MONETARY CONTROLS

In the United States, which relies for its vitality and growth upon individual freedom and incentives of private enterprise, the varying force of supply and demand in different sectors of the freely functioning money and capital markets allocates available funds among the sectors in large part through variations within the structure of interest rates. The heart of the allocative process lies, of course, in arrangements that assure each borrower the possibility of access to competing sources of funds, and each investor the possibility of choosing among competing borrowers or types of investment.

The power to limit or influence the total volume of money, and the additions to the total supply of credit that are derived from changes in bank credit and the money supply, is the responsibility of the Federal Reserve System. The use of this credit by specific borrowers and sectors of the economy is influenced by the cost of the credit and the ability and willingness of the commercial banks to extend it. This willingness is influenced by the balance between reserves which are freely available and reserves that must be obtained through borrowing at the Reserve banks at the discount rate. The Federal Reserve banks are the principal suppliers of reserves, and they may add to or subtract from the reserve base as they create or extinguish their own credit through open market purchases and sales of securities or advances to member banks. Changes in the availability of reserves may also be

affected through changes in the level of reserve requirements. An increase or decrease in the reserve base exerts pressure toward increased or reduced availability of credit and a larger or smaller money supply, with an accompanying tendency for rates to rise or fall and lending terms to ease or tighten. Changes in interest rates are the means by which market forces effect a balance between supplies of funds and demands for funds at any given time. Since the banking system and the credit and capital markets of the Nation are closely interconnected, interest rate changes quickly affect a wide range of credit instruments.

Furthermore, uncertainty created by changes in rates affects the whole complex of lenders' and borrowers' decisions. And a limited overall availability of credit forces lenders to ration available credit among users, whether the borrowers are willing to pay the higher rates or not.

Federal Reserve monetary policies thus function through the commercial banking system, and regardless of the instrument of policy used to influence credit, the supply of bank reserves is affected. Although nonbank lenders and investors may be affected directly or indirectly by Federal Reserve operations, the most significant result is change in the money supply and corresponding change in the credit structure.

One aspect of developments in the monetary system in recent years has been the relatively faster growth of such financial intermediaries as mutual savings banks, savings and loan associations, and life insurance companies than of commercial banks. The claims on such financial intermediaries (including savings deposits, savings and loan shares, policy reserves, and other financial assets) differ in essential fashion and function from demand deposits.

In contrast to other financial institutions, the commercial banking system can, if additional reserves are made available, expand its deposits by several times the added reserves as the banks make new loans or purchase securities. Bank deposits are expanded as a result of the monetization of the debts of borrowers. In the case of the financial intermediaries, acquisition of debt instruments involves the exchange of one asset (demand deposits in a commercial bank) for another (the investment acquired). Total assets cannot be increased by setting up demand liabilities in favor of the borrowers. Thus, it can be said that commercial banks create the effective money supply in the form of demand deposits, which are an independent variable at the margin of the credit supply.

The financial intermediaries cannot on their own initiative, either individually or as a system, enlarge the money supply of the public by expanding their liabilities. Most of the increases in the total of claims against the financial intermediaries depend upon an act of saving by individuals. The rise in savings, instead of representing an addition to spending power, generally reflects the diversion of a part of personal income from spending on consumer goods to the financing of productive facilities, homes, and other capital uses.

It is true that demand balances in the commercial banks may be activated as funds are recirculated by the intermediaries through their investment operation, and that the velocity of deposits may thus be increased. Many other types of transactions are reflected in changes in the velocity of money, however; during the postwar period velocity has, as in past periods, changed with the business situation, but the

behavior has, if anything, tended to be more stable. Velocity will undoubtedly continue to reflect the effect of changes in business activity and in interest rates, and will need to be continuously taken into account in assessment of the credit situation. But that is not a new development, and present institutional arrangements in the United States seem adequate to prevent serious interference with credit policy arising from changes in velocity.

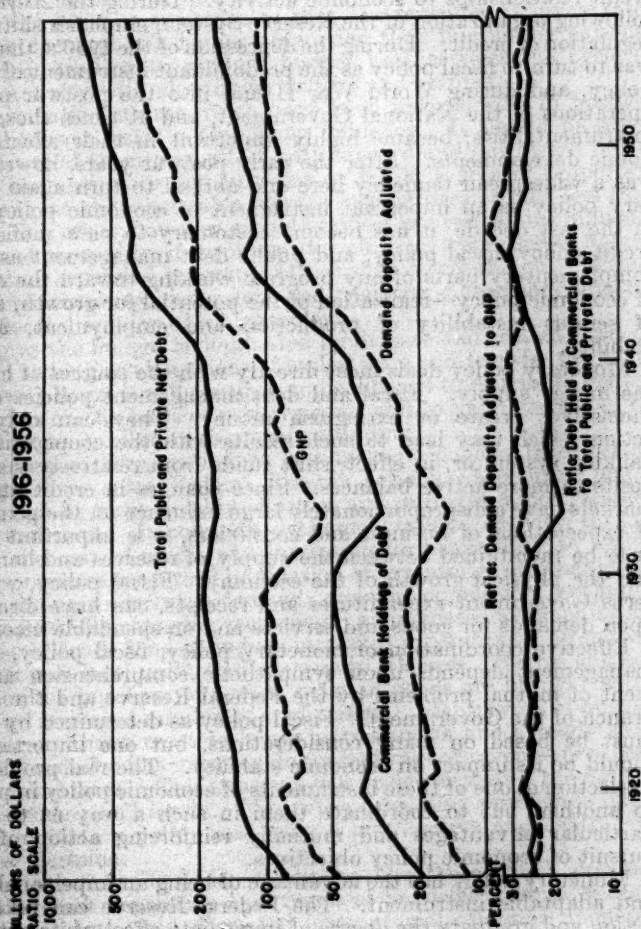
Some of the observers who have questioned the adequacy of monetary controls have suggested that capital rationing may become the critical medium for enforcing financial control of the intermediaries. Presumably, this would ultimately necessitate direction of the whole investment process and involve a significant departure from the philosophy and principles which in the past have governed monetary legislation. This subject, however, goes beyond the proper scope of this discussion; its consideration should await the results of a comprehensive and thorough study of all the financial institutions and practices of the country.

POSITION OF COMMERCIAL BANKS

The data presented in the accompanying chart show that commercial banks now have approximately the same relative position in the economy as before World War I, even though savings institutions and other financial intermediaries have grown more rapidly. The Nation's commercial bank demand deposits were equivalent to about 24 percent of gross national product in 1916 and 1917; currently they amount to about 26 percent. This relative increase has occurred even though the main alternative means of payments to demand deposits, currency in circulation, has grown still faster. Viewed in another way, commercial banks held about 24.5 percent of total net debt in the Nation in 1916 and 1917. They now hold almost exactly the same percentage. Thus, for as long a period as there are reliable statistics, commercial banks have shown no decline in importance. The ratio of the money supply to gross national product declined during the postwar boom, but the decline followed a rapid wartime rise, and the ratio is no lower now than in the 1920's.

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TOTAL PUBLIC AND PRIVATE DEBT, GROSS NATIONAL PRODUCT DEBT HELD AT COMMERCIAL BANKS, AND DEMAND DEPOSITS ADJUSTED 1916-1956



INTERRELATIONS OF MONETARY POLICY, FISCAL POLICY, AND DEBT MANAGEMENT

Even as late as the decade prior to the establishment of the Federal Reserve System, predominant attention was directed to money in the form of circulating currency, when considering the monetary and credit relationships to economic activity. During the 20-year period following organization of the Reserve System, emphasis shifted to the regulation of credit. During the depression of the 1930's, the tendency was to turn to fiscal policy as the predominant instrument of economic policy, and during World War II and into the postwar period the operations of the National Government, and at times those of other instrumentalities, became highly important in their effects on economic developments. After the early postwar years, however, there was a widespread tendency here and abroad to turn again to monetary policy as an important instrument of economic policy. Thus, in the last decade, it has become customary to view monetary and credit policy, fiscal policy, and public debt management as essential complementary parts of any program working toward the objectives of economic policy—realization of the potential for growth, avoidance of serious instability of production and employment, and price stability.

Monetary policy deals most directly with the sources of changes in the money supply. Fiscal and debt management policies cannot of themselves create or extinguish money. They can only initiate action which may lead to such results with the cooperation of the banking system or, in effect, shift funds from relatively inactive deposits to more active balances. Since changes in credit and capital markets have a disproportionately large influence on the general state of expectations of business and consumers, it is important that balance be maintained between the supply of reserves and bank credit, and the physical growth of the economy. Fiscal policy, which concerns Government expenditures and receipts, can have direct effects upon demands for goods and services and on spendable incomes.

Effective coordination of monetary policy, fiscal policy, and debt management depends upon sympathetic comprehension and treatment of mutual problems by the Federal Reserve and the executive branch of the Government. Fiscal policy as determined by Congress must be based on many considerations, but one important factor should be its impact on economic stability. The real problem is not a selection of one of these instruments of economic policy in preference to another, but to coordinate them in such a way as to gain the particular advantages and mutually reinforcing action of each in pursuit of economic policy objectives.

Monetary policy has the advantage of being an impersonal, flexible, and adaptable instrument. The Federal Reserve can take prompt action and graduate the degree of immediate effect of its actions, and it can make reasonable adjustments quickly to changes currently visible. The instruments used in policy decisions make possible continuous contact with the banking system and the money market. Open market operations may be undertaken at the initiative of the Federal Reserve and discounting is done at the initiative of individual member banks. The Federal Reserve, because of the interrelationship of these two instruments, is able to retain control of the reserve position of member banks and thus influence their credit policies.

Both fiscal policies and debt management are less flexible and adaptable, but may have more direct effects on demands for goods and services. Fiscal policy, like monetary policy, suffers from the difficulty of foreseeing clearly the economic conditions to be dealt with. In addition, it entails a sizable lag between the considerations of measures to be taken, definite decisions, and their execution; and by its nature involves rigidities. These factors hamper satisfactory design of the revenue structure so that tax revenues at given rates increase or decrease in a higher proportion than fluctuating national income, thus tending to produce budget balance over the cycle of economic activity with alternating deficits and surplus.

The automatic features which have been incorporated in postwar budgets, however, exert a stabilizing influence. It should be noted that the force of them may affect both upward and downward movements of business since revenues rise or fall in a greater proportion than output, so that spendable private income rises or falls less than output. This effect, however, would be offset as a restraining influence in periods of prosperity, if surpluses at such times were used to finance additional or expanded programs rather than to retire debt. Avoidance of a continuously rising debt and resulting inflationary pressure calls for fiscal discipline of a high order.

As long as the budget is dominated by defense and related expenditures, and as long as obligations of earlier wars and transfer payments are relatively large, it will continue to be difficult to distribute Federal expenditures on the basis of positive goals and to vary the size of the Federal budget in relation to private spending.

In depression, fiscal and debt management policies have certain advantages over some Federal Reserve actions. Monetary policy, however, can be more quickly effective and during a minor recession may be sufficient. It counters declining business activity through lowering the cost of credit and increasing its availability as well as reducing pressures for forced liquidation of inventories or other goods. Given a strong underlying demand, growing population, expanding wants, and rapidly changing technology, an increased availability and lower cost of funds tend to induce increased expenditures by individuals, State and local units, and eventually business. Terms and conditions for the purchase of a wide range of goods are brought within reach of an increased number of credit users. Many types of business capital expenditures react to lower interest costs and a ready availability of funds for financing, as do many types of revenue-producing public expenditures. This situation will be encouraged if the banking system is strong and liquid. When the overriding problem is one of inflation, monetary policy may play a more active and central role than in a recession.

On the other hand, under conditions like those which prevailed during the great depression as a result of financial collapse, reduced population growth, and disrupted international relations, monetary policy would be less likely to stimulate private demands for goods and services. In a depression of this kind, action which only increases reserves is not sufficient to stimulate spending. Credit risks increase and individuals and business tend to be reluctant to incur avoidable indebtedness. Someone must borrow if more deposits are to be created. If the Government spends through borrowing from the commercial banks, it adds to bank deposits, and funds are placed in

circulation by Government purchases of goods and services. In such a situation fiscal and debt management policies complement and supplement the improvement in atmosphere which monetary ease has developed and help to make it effective.

The large public debt in the postwar period has emphasized the need for a close cooperation between debt management and monetary policy. The Federal Reserve must take greater account of fiscal and debt problems in effecting credit policy and the Treasury must take account of credit policy in managing the debt. At times, the debt operations have tended to interfere with the execution of restrictive monetary policies as well as fiscal policy. Largely, this has come about through the influence of the maturity structure of the debt—on interest rates and in altering the liquidity of the banking system and the economy at large. Debt management decisions as they affect the maturity structure of assets held by private investors including the commercial banks and nonbank financial intermediaries have a pervasive effect. The significance of liquidity is found partly in its effect on the willingness and ability of individuals and business to dispose of assets for the purpose of acquiring other assets or to incur debt for the same purpose. A holder of cash or short-term marketable debt which may be sold or easily redeemed with little cost is able to generate a demand for goods by spending or lending.

In the absence of continuous effort and some leadership of the market, the simple effect of the passage of time will lead to a large floating debt and consequently to excessive liquidity in the economy. This factor also bears upon the technical problem of management of the debt and the latitude for effective monetary policy. If it were practicable to establish and equalize quarterly maturities, with a relatively small floating debt, and thereby develop a roughly uniform term structure of the debt, administrative and technical problems would be greatly simplified and monetary policy probably made more effective. Liquidity needs in a significant sense could then be better adjusted by the Federal Reserve. This general framework seems best to provide a successful operating atmosphere in which the joint obligations of debt management and monetary policy can be absorbed with the best results.

AREAS OF MUTUAL RESPONSIBILITY

Conflicts between fiscal action and monetary policy may occur because of differing objectives or because of technical factors. However, during the recent past Federal fiscal action and monetary policy have generally been complementary. While it is true that there were cash deficits in 1952 and 1955, 2 years when economic conditions called for a cash surplus, the 1952 deficit reflected Korean war expenditures while the 1955 deficit resulted chiefly from the lag in corporate tax receipts.

Policies designed to deal satisfactorily with inflation and deflation must continue to evolve programs for action which will produce the best end product. The question of what regulates the relationship between goods and money causing prices to rise and fall is one of fundamental importance in any society and becomes increasingly significant in the degree to which the division of labor and capitalistic

organization of production separate producer from consumer. In pursuing various economic objectives, monetary policy must be accompanied by other appropriate measures of public policy. Prof. Alfred Marshall, writing toward the end of the last century, stated that money and banking was the "center around which all economic science clusters." If this is true, caution should be taken in attempting to classify its operations rigidly as a division of economic action. The monetary system and monetary policy are conditioning factors upon which other economic actions more or less depend.

One of the most interesting aspects of our monetary system is the way in which it has evolved. It is a system that has grown out of the needs of a growing and changing economy. The history of the money market in the United States is a story of continuous development. The early years of the Republic were marked by a lack of a uniform currency, which led to the establishment of the first national bank in 1791. This was followed by the Second Bank of the United States in 1816, and the Third Bank in 1832. The failure of the Third Bank led to the establishment of the Federal Reserve System in 1913, which has since become the cornerstone of our monetary policy.

**SUPPLEMENTAL COMMENTS OF INDIVIDUAL PRESIDENTS
OF THE FEDERAL RESERVE BANKS**

FEDERAL RESERVE BANK OF BOSTON,
April 3, 1958.

HON. HARRY F. BYRD,
*Chairman, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR SENATOR BYRD: This letter and the material herewith furnish my answers to the questionnaire enclosed with your letter of February 17, 1958.

Following earlier practice the presidents of the Federal Reserve banks have worked out joint replies where our thinking has been along similar lines, and with the understanding that each president will enlarge on some of the replies if he so wishes. The joint reply "Comments in response to questionnaire of the Senate Finance Committee" is enclosed. Although all the principles and the issues under question—inflation and deflation, objectives and guides of public policy, nature and causes of business fluctuations, the use of monetary policy and its interrelation with fiscal policy and debt management, and the adequacy and the inadequacy of monetary system and financial institutions—are under continuous discussion, the questions have stimulated careful reconsideration and review of the main points as they have evolved in recent years.

Our board of directors has long been very much concerned with the matters raised in your inquiry and in 1951 directed the research committee of our board in conjunction with our staff to prepare a booklet which would stimulate public discussion and understanding. The response to this booklet was such that our directors suggested that the research committee and the staff revise the booklet in 1956, in the light of subsequent experience. *Maintaining Economic Growth and Stability* (copy enclosed) was issued in October 1956, and we have since filled requests for over 25,000 copies from business and educational institutions. May I call your attention to a few of the sections: What is Economic Stability? What is Economic Instability? Fighting Inflation, and Fighting Deflation. These sections discuss some of your questions in briefer form than does the joint reply.

PROBLEMS OF BUSINESS FLUCTUATIONS

One of the most interesting issues raised by your questions has to do with reasons for business fluctuations. It seems to me that the causes of fluctuations at any given time involve a combination of factors. Each period of business fluctuation also seems to be unique in its particulars, but it may have general similarities with those which have occurred in the past. The cause is found in the inter-

action of the following factors—temporary exhaustion of investment opportunities in one or another line of business activity, the necessity for shifting resources from one field of activity to another in response to changing the structure of production as a result of public or private stimulus, and monetary forces. Some of the developments which have characterized downturns in business activity in the past do not seem likely to repeat themselves because of changes in the monetary system as well as in the role of Government.

In the future, however, it is likely that the movement of business will not be smooth and at least two types of fluctuation will occur—change arising from inventory expansion or contraction, and change arising from variations in rates of investment in capital goods by both consumers and producers. Investment in capital goods was a key force over the recent 3-year upward movement of business. Both the upward and downward force of this factor seems to me to gain in importance with the growth in the proportion of income spent on automobiles, appliances, and other durable goods which have a useful life of several years. This force will also be increased with the introduction of further automatic processes or appliances in industry as well as the household. The demand for new supplies of durable goods tends to fluctuate more widely than the demand for the current services which these goods render. This kind of development underscores the need for coordinating the use of all instruments of public policy in attempting to maintain orderly economic growth.

EMPLOYMENT STABILITY AND ECONOMIC GROWTH

Several of your questions have as their central theme the relationship between employment stability and economic growth. A thorough analysis of stability and growth in a country as large as the United States must include consideration of the various types and stages of development illustrated by the different geographic regions. New England, for example, has many unique characteristics that highlight important aspects of growth and stability in a well-developed economy.

Three broad problems have hindered the rate of New England's economic growth. The problem that has received the most recognition has been the severe contraction in what was the region's largest industry—textiles. During the recent general boom years of 1955-57, for example, it has been necessary to absorb about 40,000 workers released by that industry. A second problem has been the increasing pressure of competition from manufacturers located in other regions. A combination of small moves in several factors of production costs such as transportation, fuel costs, materials costs, and others have intensified the problems of a New England manufacturer's reaching into the national market with his products. On a broader scale in time and generality, the absence of a large farm population in New England has somewhat restricted the region's ability to upgrade its labor force by shifting into manufacturing and service employment.

Taken together, these factors explain some of the apparent contradictions in the regional economy. They explain why we have pools of unemployed workers in some cities while neighboring cities may have a worker shortage. They explain why total manufacturing employment has not gained in the past 6 years, even though this Reserve bank's index of manufacturing output for New England had

risen by 21 percent to its peak in 1957. Workers in the expanding industries had higher productivity than the average for the contracting industries.

The extensive structural shifts in our regional economy have been an important factor in holding per capita income above the national average. But these shifts have also increased the vulnerability to employment fluctuations. During the period 1919-39, New England manufacturing employment tended to be more stable than that of the United States. This greater stability was attributed to the predominance in the region of such nondurable goods manufacturing as textiles, both cotton and wool, and shoes and leather.

Since 1939, however, New England has steadily increased its durable goods manufacturing, with an apparent reduction in the stability of its factory employment. In the 1947-49 recession, after adjustment for seasonal and long-term trends, total manufacturing employment in the Nation showed a drop of about 13 percent, while the drop in New England was 14.5 percent. In the 1953-54 recession, employment in New England industries fluctuated about the same as that of their national counterparts, except for textiles, which dropped nearly twice as much in the region as in the Nation.

As it devotes an increasing share of its manufacturing effort to durable goods production, New England is, of course, moving into an area in which employment is traditionally less stable. In the recessions since World War II, the Nation's durable goods makers have reduced employment about two and one-half times as much as have nondurable goods producers.

New Englanders have long recognized that the greater maturity of their economy sometimes means that problems of redevelopment must be faced somewhat earlier than in the more recently industrialized regions. In this sense the area serves as a testing ground for new development techniques. The annual reports of this bank for the past 4 years have analyzed in considerable detail the progress of New England's economic development. The most recent report (copy enclosed) verifies that diversification on the part of New England communities provides a measure of insulation from sharp and prolonged employment declines and indicates a continuing need for diversification efforts.

As New England works out of the tragic loss of its major industry, it faces the possibility of other losses due to current dependence on defense production. The largest source of new jobs in the past decade is the production of defense materials—aircraft engines and components in Connecticut and electronic guidance systems and missiles in Massachusetts. Alertness in developing the peacetime applications of discoveries and experience arising from the defense effort is greatly needed.

Your question concerning the adequacy of the monetary system prompts me to mention an innovation in the monetary system that is proving itself. Although this area is exceptionally well served by a wide range of financing institutions, experience with the financing needs of the region led to the identification of a gap in the Nation's financing system. New and growing enterprises need more equity financing if their growth is to be accelerated. In absence of equity funds, these entrepreneurs seek long-term credit from sources willing to assume a greater than normal risk. This is the credit need that

is being met by a new financing device, development credit corporations. The general structure of these state-wide, privately financed credit corporations was established in Maine in 1949 and has been the pattern for a rapid adoption throughout New England and several other States.

IMPACTS OF TAXING AND SPENDING

Your questions about the effects of Federal, State, and local tax and spending policies call for comments about the variations in their impact on different regions. All too often these impacts are ignored or buried under the weight of other considerations.

The Federal 3 percent tax on transportation is an example. Inaugurated during the war for revenue purposes, its continuance has weighed heavily on railroads whose deficits may foretell bankruptcies. The tax bears most heavily on those resource-deficient areas such as New England that must ship materials in and transport finished products to the consuming markets. The transportation tax likewise places a penalty on those areas that have the longest transportation lines in gathering materials and delivering products. Thus the difference in cents-per-pound delivered price caused by the tax makes it that much more difficult for the distant shipper to compete. The transportation tax is merely one of the Federal excise taxes that restrict trade and investment and are continued largely for reasons of revenue. The broader impact of excise taxes should be reviewed in a thorough study.

The full impact of Federal tax and spending policies on a single region is not easily measurable. It is apparent that some programs have a developmental effect in some regions while their effect in others may be disadvantageous. Both national and regional interests require that each Federal program be considered both in terms of gains for the supported areas and burdens on other areas. Programs adopted for national interests should not ignore problems of adjustment if they are concentrated in specific geographic areas.

The actions of State and local governments frequently have an influence on economic growth that is not sufficiently appreciated. Trends of private investment set the pace of economic growth. Investment decisions as to location of facilities often hinge on small differences. State and local tax and spending policies provide a climate that may be conducive or hostile to private investment.

PRIVATE DEBT

During the recent period of economic expansion, the increased expenditures, particularly for capital goods, supported the strong demand for credit as well as the rapid expansion of private debt. It is interesting to note that business debt increased less, percentage-wise than consumer indebtedness or the debt of State or local government units. In connection with consumer debt, the record shows that during the recession in 1949 there was no net reduction in installment credit. Outstandings rose steadily throughout the year. During 1954, installment-debt repayments exceeded new credit in the early part of the year by a small amount, but by late spring the volume had begun to rise again and rose at an unprecedented rate in 1955. In both these recession periods, consumer debt represented a sustaining

force part of which undoubtedly reflected long-term growth of this type of credit. I believe that outstandings will grow somewhat less rapidly in the years immediately ahead. Most of the long-term growth of consumer debt may be past. If this is true, then consumer debt can be expected to fluctuate to a greater extent in future expansions and contractions of business activity. It thus may become either an expansionary or a contractive force which will have to be reckoned with in business fluctuations. Favorable features of consumer debt in the last 10 years have been the rapid rate of turn over and the excellent experience with repayments.

MONETARY AND FISCAL POLICIES

The joint answer in section III has dealt at length with the change in monetary policy during the postwar period. I would like to stress that during the period since 1951, which began with the accord, monetary policy has had an influence in producing what might be described as orderly turning points in economic activity. We have been fortunate in that at the upper turning points in the spring of 1953 in the fall of 1957 there was no strong speculative activity, forced liquidation, panic, or severe strain in the capital or money markets. Thus, a contribution of monetary policy has been its performance during its restrictive phase which resulted not only in lengthening the upward movement of business but also limiting the force which would promote acceleration of a downturn. Too frequently, the general observer tends to isolate policy steps and consider them to be abrupt and sharp. They should always be viewed as being part of a continuous process. Continuity of monetary policy provides part of its quality. I would like to emphasize here, as, I am sure, my associates have, that monetary policy works to restrain the force of inflation from causes arising from the monetary side. But it is limited in its performance, and for maximum effectiveness must be supported by other measures of public policy. Monetary policy, however, is an important conditioning factor for all economic activity.

As compared with some earlier periods, public interest, attitudes, and philosophy as regards economic developments have undergone substantial change, and the Government is now generally expected to accept a much larger measure of responsibility for economic policy. This requires careful weighing of the various purposes to be fulfilled and of decisions about the most suitable measures to achieve proper balance in the economic system in all circumstances. Decisions here involve the relation between spending and saving and consumption and investment, as the joint answer points out in several places. A variety of suggestions have recently been advanced for correcting the present recession. Most of these involve direct action on the part of the Congress—cutting taxes temporarily and authorizing large-scale public expenditures for work of one kind or another. It seems to me to be too early to launch steps along this line. If the business decline accelerates, then action of this type will be appropriate. In the meantime, action already taken by monetary policy in developing sufficiently easy credit, and action taken by the Govern-

ment in speeding up defense expenditures and other projects already in progress may be sufficient.

The course of the recession to date would suggest that if substantial deficit financing were undertaken, either through temporary tax cuts or increased expenditures, inflationary pressures might soon reassert themselves. Restoration of full employment by means of fiscal policy could lead to the resumption of pressures toward higher wages, and they might again rise more rapidly than output per man-hour. Business might also make commitments in anticipation of continuous price increases. We do not now seem to face a long period of extensive underutilization of resources.

It is significant that Congress has made several inquiries about postwar financial developments, as well as searching and useful reviews of the conduct of monetary policy by the Federal Reserve during the last 10 years. Your committee is continuing this work, and has also paid more attention to debt management with its role in relation to monetary policy. I think that inquiry and thought along this line is important. It seems to me that debt management will continue to be of great importance in the future, and we should make every effort to use it in conjunction with monetary policy and fiscal policy as an active instrument.

These and other problems in the monetary and the entire financial areas—private as well as governmental—need, as I have recommended on other occasions, study and review by nonpartisan, professional, or otherwise qualified persons drawn from both public and private life. Such a group could have a membership similar to the National Monetary Commission in 1910 or of the Commission on Foreign Economic Policy in 1954, and would continue and build upon the work of your committee. I cite these Commissions because their membership has commanded respect and their work has been judged of superior quality.

During my career in banking, which dates back to 1920, and particularly since my association with the Federal Reserve System during the postwar period, I have been impressed with the fact that the development of our financial institutions has been logical and evolutionary. Some persons tend to consider the Federal Reserve System as if it were created in 1913 and imposed upon or injected into the middle of our financial arrangements. Actually, the System evolved from what had gone before, and represented a rounding out of our banking structure providing a necessary federation of our independent unit banking systems. In accord with American practice, the System reflects the use of checks and balances of the democratic process, and its decisions reflect opinions of both public and private representative groups. It has also shown an adaptability to change along with changes in our institutions over the years, working toward developing a more effective and efficient monetary system. Whatever arrangements may be developed in the future, it is my strong conviction that sound judgments, rather than automatic formulas, will continue to be necessary in determining public policy. Development of informed understanding and opinion will help to make policy decisions effective.

Sincerely yours,

JOSEPH A. ERICKSON, *President.*

FEDERAL RESERVE BANK OF NEW YORK,
New York, N. Y., March 28, 1958.

HON. HARRY F. BYRD,
Chairman, Committee on Finance,
United States Senate, Washington, D. C.

DEAR SENATOR BYRD: I am writing in response to your letter of February 17, 1958, asking for my thoughts and opinions on various matters affecting our economy. Since the presidents of the other Federal Reserve banks also received such a letter, they and I thought at the outset that there might be much benefit to all concerned, including your committee, if we were to work out answers in cooperation with each other to the extent that our thinking was likely to run along parallel lines. This seemed especially desirable in the light of your wish to obtain a prompt reply. We thought that such a mutual discussion of the matters in question would undoubtedly stimulate a cross-fertilization of ideas and would lead to a more thorough and useful response to the difficult questions you had posed. Accordingly, comments have been prepared by the presidents of the Federal Reserve banks, jointly, and a copy of these comments is submitted with this letter.

Since you suggest that the list of questions enclosed with your letter might be used as a guide, and that it was not necessary to follow the list rigidly, it seemed desirable to group our comments under 5 principal headings, representing the 5 principal areas touched upon by your questions.

The comments begin with a discussion of inflation and deflation and a description of economic developments since the outbreak of World War II. That is followed by a discussion of the objectives of monetary policy, and then by a description of the way in which monetary policy has actually been carried out over the period since 1941. The fourth main area is that of fiscal policy and debt management, and in the final section some aspects of the monetary system and some problems of coordination between monetary and fiscal policy are discussed. This concluding area is, however, one in which there is wide room for individual judgment in weighing various factors. It seemed to me desirable in this and other areas to add a personal expression of views. My reply to your letter thus consists of two parts; first, the enclosed set of joint comments prepared by all of the presidents, and second, this letter, setting forth some of the points on which I would like to place special emphasis, or which were not covered in the joint reply.

The first of the five topics focuses attention on the contrast highlighted by your first question, that between inflation and deflation. It seems to me that the term or concept of deflation should not be used as an exact opposite or counterpart of inflation. To me, deflation has always implied a severe decline in prices, accompanying a major economic depression, and usually involving widespread credit liquidation. Inflation, on the other hand, means to me any condition in which the general level of prices is rising, or the purchasing power of the dollar deteriorating—apart from relatively short-lived and moderate price increases that may for brief periods accompany a phase of general economic expansion. To put it simply, I am disturbed, and I think public policy should be concerned, whenever the general

level of prices rises for more than a few months at a stretch. Yet it seems to me that public policy should welcome conditions in which the general level of prices might gradually decline, so long as such a decline represented the gradual spreading of the benefits of increased productivity to the general consuming public in the form of lower prices.

More specifically, with respect to the joint answer itself, I would like to supplement the discussion relating to the two charts (p. 28) on productivity and earnings. The discussion of real hourly earnings and productivity should, I would think, be enlarged by some reference to the more usual comparisons between money-wage rates and productivity. It seems to me that a part of the causal force to which much of the price increases of the past 2 or 3 years may partly be attributed is obscured by a simple comparison between real wages and productivity. It may well be that money wages have advanced fast enough to keep the average hourly wageworker receiving a proportionate share of the real output per man-hour. But there is also a question as to whether the repeated increases in money wages through which this has been brought about may not have exerted upward pressures on costs of such intensity that they contributed to a spread of inflationary price developments, which, in turn, played some part in causing the turn from expansion to contraction that occurred in the latter part of 1957.

On the second subject, the objectives of economic policy, it has seemed to me that, as a practical matter, the objective of stability of production and employment is inseparable from the objective of promoting the long-run growth of the economy. Stability, in a static sense, is unacceptable as an objective for, if it persisted for any extended period, it would, in fact, mean retrogression. On the other hand, while some fluctuations must be expected, and may even be desirable in the interest of efficiency and progress, instability, in the form either of substantial overexpansion or serious contraction in major areas of the economy, is inimical to sustained growth. The need for combating cumulative contraction of production and employment is obvious. Yet the invariable tendency for recession to follow attempts to expand too rapidly in too short a period of time seems to be a lesson which, historically, has had to be relearned repeatedly; policies designed to restrain booms have frequently been unpopular and have usually been vigorously opposed by those most directly affected, even though their best interests were likely to be well served by such policies in the long run.

I am convinced, also, that the objective of overall price stability is in harmony with the objective of sustained growth. Fluctuations in prices of particular commodities and services in response to changes in supply and demand are necessary and desirable to promote the proper allocation of resources. But substantial changes in the general level of prices in response to general forces, whether monetary or other, serve no such useful purpose and are, in fact, likely to be inimical to sustained growth. It would be unreasonable, however, to expect complete stability in the general price level so long as there are appreciable fluctuations in business activity. In past periods of rapidly expanding activity, the price level has usually risen, and in periods of recession prices have usually fallen. Consequently, monetary and other economic policies designed to restrain price advances served at

the same time to restrain tendencies toward overexpansion in major areas of business activity, and policies designed to check recession also served to prevent any serious deflationary tendencies in prices.

The most disturbing economic development of recent years has been the indication that this symmetry between expanding business activity and price advances, on the one hand, and declining business activity and price reductions, on the other, has been impaired if not destroyed, so that there has been a tendency toward progressive depreciation of the value of the currency and of money savings. With the exception of basic commodities, costs and prices seem to have become subject to increasing rigidity, so far as downward adjustments are concerned, while showing no lessened responsiveness to upward pressures. This development is the basis for fears of recurrent and cumulative erosion of the purchasing power of the dollar, and poses a serious problem for national economic policy generally. Governmental action to maintain, or to restore, high-level production and employment runs the risk of accentuating or renewing the inflationary trend, while there is serious question whether the upward price trend can be stopped without causing or at least permitting substantial curtailment of production and employment. Yet acceptance of progressive inflation would place a premium on speculative activities at the expense of constructive investment and so interfere with sustained and balanced growth, quite aside from the inequities involved.

It is with that kind of dilemma that the Federal Reserve System has been faced during the past 3 years. It has been, and is still, our hope that high—and rising—levels of production and employment can be reconciled with stability in the value of money, and our efforts have been directed toward that combined objective. But we have neither claimed nor thought that monetary policy alone could achieve complete success in its pursuit.

Nonetheless, in my opinion, the monetary policies that have been followed in recent years have had some real success, on balance. Business activity and employment generally have held at high levels for a considerable period; price advances have at least been no greater or more rapid than in some earlier periods of expansion; and, by historical standards, recessions of the postwar period have been mild and of relatively short duration. Admittedly, however, any successes we may have had have been only partial. It is sometimes said that restrictive monetary policies have been unsuccessful in stopping inflation, but at the same time have been responsible for a contraction in business activity and employment. Yet it seems clear that the sectors of the economy that have shown the most pronounced declines in recent months are those that had previously shown the greatest expansion, such as business capital investment and inventory accumulation—not the areas, such as residential building and state and municipal projects, that were said to have been most affected by tight money conditions. And there are grounds for believing that the "capital goods boom" and the inventory accumulation would have gone farther, with consequent likelihood of more drastic curtailment now, if it had not been for the greater difficulties and costs of financing them during 1956 and much of 1957.

But, even though we recognize that monetary policy alone cannot be expected to assume full responsibility for preventing inflation and for combating unstabilizing forces in the economy, and even though

we believe that the policies of the Federal Reserve System in recent years have on the whole been the correct ones, we still feel that we should give serious thought to how our performance could be improved and made more effective. One question to be considered is whether the presently available instruments of monetary policy are all that are needed for appropriate and effective action. Another is whether there are organizational or other improvements that might result in better use of available policy instruments. Perhaps the most basic and most difficult question of all is one which applies to all aspects of national economic policy—how can we improve our ability to appraise current and prospective economic developments more accurately? If we could foresee more clearly impending developments, the chances of success in efforts to minimize booms and recessions presumably would be considerably increased.

With respect to instruments, it now seems clear that the general instruments of credit policy—those that affect the availability and cost of credit broadly—must be the backbone of an effective credit or monetary policy. Without the support of general credit restriction, attempts to limit the use of credit for specific purposes tend to break down. Still, it may be worthwhile to consider whether the recent tendency to minimize the utility of selective credit controls may not have been overdone. Undoubtedly they have their undesirable features. Even the most generally approved type—the regulation of security loan margins—has the disadvantage of tending to narrow the market for securities. Yet the absence of a huge volume of indebtedness for securities carried on margin accounts, such as existed in 1929, is one of the important grounds for confidence that we need have no fear now of a repetition of the experience of the early thirties.

But it is at least conceivable that the capital goods boom since 1955 would not have been of the same magnitude, that inflationary pressures would have been less strong, and that there would now be less need for readjustment, if it had been possible to take direct measures to restrain the expansion of consumer credit and mortgage credit, and thereby restrain the housing and consumer durable goods boom of that year. Despite the voluminous and exhaustive study of consumer credit controls that was completed only a year ago, and the vociferous objections from interested parties to such controls, perhaps the issue should not be considered closed if we are really serious about minimizing economic instability. I can assure you, however, that there exists in the Federal Reserve System no bureaucratic urge to administer such controls—quite the contrary. Perhaps if consideration should again be given the question of giving the System standby authority to apply such controls in the future, it might be worthwhile to study the experience of other countries, where enforcement, as distinguished from policy formulation, is in many cases administered by an agency other than the central bank. I do not question the usefulness of consumer credit in facilitating the purchase of items of substantial cost, nor am I disposed to pass judgment on the question of whether the absolute level of consumer indebtedness at any given time is too high. My concern, rather, is with the effects of rapid acceleration or deceleration of the growth of consumer credit on the stability of production and employment.

Similarly, the experience of recent years suggests that if greater stability in residential building is to be achieved, it may be necessary to consider granting the appropriate agency standby authority to vary the terms of Government insured or guaranteed mortgages, and interest rates on such mortgages as well, to keep them competitive with alternative investments. I am not suggesting that such authority be assigned to the Federal Reserve System.

There have also been suggestions in recent years that the rapid growth of the various types of savings institutions and other credit-granting organizations (financial intermediaries), not subject to regulation by the Federal Reserve System, has weakened the effectiveness of monetary policy, and that such institutions should, therefore, be made subject to some form of governmental regulation. I agree with the statement in the joint reply that this is a matter on which conclusions should await comprehensive and thorough study of all the financial institutions and practices of the country. I have long felt that such a thorough study should be undertaken by a highly competent and impartial group, either with or without governmental sponsorship. Consequently, I am hopeful that the present studies of the Senate Finance Committee, considered in conjunction with those announced by the Committee for Economic Development, will provide the broad basis for the kind of exhaustive analysis that we need.

The question in the list enclosed with your letter concerning the adequacy of the monetary system might be interpreted to include not only the deposit banking and currency system and the instruments of monetary policy, but also the organizational structure of the Federal Reserve System, especially as it concerns participation in policy decisions. I believe that the organization and assignment of responsibilities that has evolved over the years is well adapted to the purposes and functions of the Federal Reserve System. Authority over the various policy instruments is assigned to various groups within the System—the Board of Governors, the Federal Open Market Committee, and the boards of directors of the Federal Reserve banks—but I see considerable advantage and no serious disadvantage to this dispersion of responsibility. It affords opportunity for participation by all parts of the System, representing a wide range of experience, in the consideration of policy problems, and at the same time there is assurance of effective coordination of policies through the frequent meetings of the Federal Open Market Committee. Some years ago the presidents of the Reserve banks suggested to a congressional committee that it might be desirable to concentrate authority over all the principal instruments of credit control in the Federal Open Market Committee. While I have reached no firm conclusion on this matter, I think it may be worth consideration.

The presidents of the Federal Reserve banks come to the meetings of the Federal Open Market Committee, not as instructed delegates of their boards of directors—and certainly not of the member banks—but as professional central bankers engaged in a career of public service, and motivated by the desire to serve the public interest broadly to the best of their ability. They come prepared with information on current regional and national economic developments and trends obtained from their directors, technical staffs, and others, and after consultation with their staff advisers. And it has been my

observation that Reserve bank directors approach their duties from the viewpoint of an opportunity and a responsibility for public service.

With respect to the problem of improving the economic analyses on which our policy decisions must be based, I have no suggestion other than unremitting effort to attract and hold in career service the most competent staffs we can obtain, and to make the best use of all available information.

Turning to the subject of fiscal policy, the joint reply comments on the difficulty of using tax reduction or an increase in Government expenditures to exert a sustaining influence on production and employment, in view of the time lags involved in reaching decisions and in putting them into effect. My own feeling is that there is a greater possibility of effective action than this would suggest, especially in the area of tax cuts. It seems to me that while the time needed to reach a decision on tax rates is undoubtedly greater than that required for monetary policy decisions, the effect of a tax decision, once taken, could conceivably be fairly prompt. All things considered, I would think that a carefully designed tax cut is likely to be a considerably more prompt and flexible instrument for combating a recession than is an increase of comparable magnitude in Government spending. This is not to deny in any sense the usefulness, under such circumstances, of speeding up existing sound Government spending programs as much as possible. I would stress, however, that no fiscal measures to combat recession should be taken, with all that they may imply in the way of future inflationary problems and difficulty in reversing such moves, unless it seems reasonably clear that failure to use them involves a real risk of more serious recession.

As for the use of debt management as a positive instrument to reinforce countercyclical fiscal and monetary policies, the enclosed report suggests three alternatives, of which the third embodies a compromise approach, with the Treasury generally avoiding the floating of large-scale issues of long-term securities, and instead doing any long-term financing from time to time on a modest scale, in both good times and bad. While the report avoids specific recommendations in this field, the implication is that this may be the best of the three alternatives, and with that conclusion I have no quarrel. It seems to me, however, that there is considerable room for experimentation in this area—that there may be other equally sound or sounder methods of compromising between the two extreme positions—and that there may be periods in which large-scale long-term issues would be highly desirable, and other periods when the Treasury might well wish to concentrate on short-term issues. In other words, I am reluctant to concede, without further experimenting, that debt management is of limited use as an instrument of anticyclical economic policy.

One question in the list that accompanied your letter relates to the possible need for changes in present monetary and banking laws or for new laws. In this area I would first like to express the hope that the Financial Institutions Act already passed by the Senate and now under consideration in the House will soon become law. While this act does not attempt to deal with some of the larger policy questions pertaining to monetary and credit control, it would perform a highly useful function in providing a number of much-needed changes and

in generally bringing about a clearer and more systematic statement of existing laws.

There has been much discussion during recent years on the merits of inserting a clause in the declaration of policy in the Employment Act of 1946 making the maintenance of price stability a stated objective of Government economic policy. The closing phrase of the declaration, which refers to promoting "maximum employment, production, and purchasing power," has been interpreted as meaning maximum sustainable levels, and we believe that requires avoidance of either inflation or deflation in any marked degree. I would, therefore, favor the proposal that the declaration of policy be amended to include explicitly stability of the value of the dollar among the objectives of national economic policy.

Yours sincerely,

ALFRED HAYES, *President.*

FEDERAL RESERVE BANK OF PHILADELPHIA,

March 31, 1958.

HON. HARRY F. BYRD,

Chairman, Committee on Finance,

United States Senate,

Washington, D. C.

DEAR SENATOR BYRD: Since Mr. Alfred H. Williams retired from the presidency of the Federal Reserve Bank of Philadelphia on February 28, 1958, I am responding as his successor to the questions you addressed to him in his official capacity.

I share the view of the presidents of the other Reserve banks that we will make our maximum contribution to your extremely important inquiry if we follow generally the procedure established in responding to the inquiries received from Senator Douglas in 1949 and from Representative Patman in 1951. This procedure has the great advantage of assuring that the whole area of your interest will be covered while enabling each president to concentrate on those aspects that concern him or that have occupied his particular attention over the years and on which his judgment may be of some value. My complete response, therefore, consists of the enclosed document "Comments in Response to Questionnaire of the Senate Finance Committee," which was prepared by our staff committee, and this covering letter.

I am sure you appreciate that discharge of imperative but unique time-consuming duties during my first month in office has made it impossible to devote as much time to the inquiry as its importance requires or as much time as I desired to give. My available time, therefore, was spent on a discussion of a few basic ideas. It has not been possible to develop necessary qualifications or to polish the phraseology.

The discussion is directed to three questions, as follows:

1. Has the rapid development of financial intermediaries changed the essential role of general monetary policy?
2. Has market structure been the source of uneven impact of credit restraint?
3. Should the monetary authorities direct their policies toward achieving a predetermined rate of growth of the economy?

1. *Has the rapid development of financial intermediaries changed the essential role of general monetary policy?*

A view that has gained considerable support in recent years is that the rapid development of financial institutions other than commercial banks has weakened seriously the influence of central banks and the role of general monetary policy. Stripped of qualifications, the reasoning that leads to this conclusion runs about as follows:

The monetary authorities regulate the amount of reserves available to the commercial banks. Commercial banks adjust their lending and investing activities to their reserve positions and thus influence the amount of deposit money. When reserves are tight in a period of restraint, banks will limit their lending by charging more and by screening applications more rigorously. If banks are the only source of credit open to borrowers, the restraining monetary policy can be effective. If, on the other hand, borrowers can turn to other sources, the influence of the monetary authorities is dissipated.

My own view is that the essential ingredient of general monetary policy is the power of the monetary authorities to influence significantly the terms and conditions under which the public can secure the amount of cash balance that it needs. This judgment in turn is based on the belief that the attractiveness of cash relative to debt assets on the one hand and real assets on the other influence the flow of expenditures and thus the general level of economic activity.

The power of the Federal Reserve System to tighten credit may be measured in dollar terms by its portfolio of earning assets plus the amount by which existing member bank reserve requirements fall short of the legal maximum. The order of magnitude at present is in excess of \$25 billion. The power of the System to ease credit is limited by the requirement that the Reserve banks maintain a gold certificate reserve equal to at least 25 percent of their note and deposit liabilities and by the extent to which existing member bank reserve requirements exceed the legal minimum. The dollar amount at present exceeds \$40 billion. The magnitudes are obviously adequate in both directions.

I do not wish to create the impression that it is easy to decide the terms and conditions that are appropriate at any given time to produce the desired results. On the contrary, I have found this an extremely difficult and not always successful undertaking. But that is the basic decision on which attention should be focused.

As far as financial intermediaries are concerned, it should be remembered that they do not operate in a vacuum. They operate in organized and in customers' money and capital markets which are influenced by monetary policy. In fact, one consequence of the institutional developments of recent decades is that both borrowers and lenders have more options. A man who wishes to finance the purchase of a house or of an automobile can apply at several different types of institutions. Alternatively, one who wishes to save in liquid forms has numerous options. Banks and other institutional lenders in turn may lend to consumers, to homeowners, to business firms, and others. Is it not reasonable to suppose that as the number of options increases—as the network of credit contacts becomes more elaborate—the influence of the monetary authorities permeates the economy more thoroughly and more quickly? Incidentally, doesn't

the widespread ownership of the Federal debt operate in the same direction? Doesn't the credit market become more fluid and doesn't the burden of distributing credit fall more on price and less on administration or rationing?

Nevertheless, the allocation of credit among competing users is an area of recent financial developments that merits much more study. So, also, does the question of competitive relationships among various financial institutions.

My judgment as to the nature of the problem that confronts us is reinforced by an analysis of two earlier instances in which some observers also concluded that central banks were losing their effectiveness.

Although the two episodes differ in detail from current developments in the United States, the basic issue is the same. It is that growing competition of other lenders who presumably escape control can nullify the effects of actions by the central bank. At times the complaint was directed against competition from other banks with limited powers of issue and at times against competition of commercial banks with the central bank rather than between nonbank and bank lenders, but the essential core of the problem has been the same.

The first episode concerns the operations of the Reichsbank from 1876 to 1914. During the first half of the period the complaint was that the banks with limited powers to issue notes were nullifying the powers of the Reichsbank and during the second half it was that the commercial banks were doing so.

The case of the Reichsbank is particularly relevant because the mechanism of control, when viewed from today, was so loose-jointed. The facts are that: (1) before the First World War the Reichsbank paid virtually no attention to reserve balances and ordinarily did not even know what their magnitude was; (2) it did not try to establish their amount at predetermined levels; (3) it was not in a position to do so quite apart from the question of controlling its own assets because of the magnitude of the variations in its other accounts; and (4) German commercial banks did not maintain either their reserve deposits at the Reichsbank or their total primary reserves at any customary relationship to deposits.

The argument was that any pressure the Reichsbank tried to exert could be absorbed by the other banks through the simple expedient of allowing their own reserve ratios to decline. In fact, by allowing their ratios to decline sufficiently, they could move in the opposite direction from that desired by the Reichsbank. Similarly, they could absorb any ease the Reichsbank was trying to create by allowing their reserve ratios to rise.

There is, of course, something to this argument. By allowing their reserve ratios to vary, the other banks could absorb or release some of the reserves the Reichsbank was creating or destroying. It does not follow, however, that they could defeat the Reichsbank's intentions. What the variable reserve ratios meant was that the Reichsbank had to conduct operations on a larger scale in order to achieve a given result because it had to offset the effects of the actions of the other banks.

The fact is that the Reichsbank had sufficient power at all times to do this. Whatever reserves the commercial banks wished to keep had to be secured from the Reichsbank whose earning assets were always

much larger than the total cash assets of the commercial banks. The Reichsbank was also able to influence directly the terms and conditions under which certain other borrowers acquired cash because it was a large commercial bank as well as the central bank. A conclusive demonstration of the Reichsbank's power is that it was able, despite all these impediments, to achieve throughout this period its overriding objective, which was to maintain convertibility of the mark.

The second episode concerns the Bank of England in the 19th century. Prof. Elmer Wood, of the University of Missouri, has made an exhaustive study of the experience. The question at that time was whether the so-called country banks which had authority to issue redeemable notes could escape the control of the Bank of England by reducing their reserve proportions. Professor Wood concludes that they could not do so because, as he puts it, "at no time down to 1913 were the total private securities of the bank unmanageably small in relation to total bankers cash. Whether the banks, therefore, chose to adjust their reserve proportion at 8 percent or 15 percent, the terms of the bank had to be met."

I have cited these two experiences because they contain elements that are relevant to our own problem. Indeed, the conditions that presumably impeded the Reichsbank and the Bank of England were stronger than the conditions now confronting the Federal Reserve System. They were dealing with money-creating institutions whereas we are concerned with financial intermediaries. These latter can influence the flow of purchases, which is what really concerns us, only by affecting the efficiency in the use of money, or velocity of circulation as it is called technically, whereas the former could influence not only velocity but the actual quantity as well.

2. Has market structure been the source of uneven impact of credit restraint?

An area of general monetary policy that needs much more study than it has yet received is the precise impact of that policy on various sectors of the economy. My immediate concern about this problem is that some observers are tempted to reach firm conclusions on what seems to me to be limited analysis and evidence.

We must begin by recognizing that if credit restraint is to be effective it must result in postponing some spending that would otherwise have taken place. It is obvious that these postponements will not be proportional to the actual expenditures of all spending units. The impact will not be uniform.

I shall analyze briefly one theory that has been advanced to describe the differential impacts. This is not a field in which I have specialized and the analysis is tentative. My sole purpose is to indicate that we should not rush to adopt solutions before we understand the problems that confront us.

The particular theory is that general credit restraint sorely handicaps competitive-price industries and leaves virtually untouched the administered-price industries. In some versions, the conclusion seems to result from a rather unusual classification of industries between the two categories, with housing and "other industries where firms are small and numerous" classified as competitive-price industries.

The inclusion of housing is particularly interesting. Since housing starts fell from about 1.3 million in 1955 to 1.1 million in 1956 and to

1.0 million in 1957, it is tempting to some to include home building among competitive industries.

It seems to me that prices of new houses are administered prices; just as administered as, say, the price of an automobile at the dealer's showroom. There are many thousands of home builders in this Nation. But housing sells in a local market. Housing starts in Los Angeles have little or no effect on house prices in Philadelphia. Each home builder erects individualized houses. His price is determined by his costs, the home's location, and what he thinks the market will pay. But he sets the price. It is no more subject to fluctuation than most other administered prices. (In this connection it is interesting to note that housing prices were 7 or 8 percent higher in 1957 than in 1955, despite a decline of one-fifth in starts.)

Perhaps it would be profitable to debate whether home building is a competitive-price industry. Certainly, there is room for some argument. But there is widespread agreement as to why credit restraint had an unusually severe impact on housing in 1956 and 1957. And the answer has nothing to do with market structure. The figures below pretty much tell the story.

Private starts

[In thousands]

	FHA	VA	Conventional
1955	276.7	302.9	639.9
1956	189.3	270.7	633.9
1957	168.4	198.3	604.4

Housing starts slumped off in the Government guaranteed and insured sector. There was an actual increase in houses started under conventional financing. (No one would want to argue that home building of conventionally financed housing is characterized by administered prices and that Government-insured starts are competitively priced.) The "sticky" interest rates on FHA and VA mortgages unquestionably had a great deal to do with this disparity. Interest yields for lenders on Government-insured mortgages were not attractive. Funds went elsewhere.

Housing starts were dramatically affected by tight money, not because home building is a competitive-price industry but mainly because FHA and VA interest rates did not slide freely with general interest rates.

Some of those who emphasize market structure classify "other industries where firms are small and numerous" as competitive-price industries. Not all small businesses, however, fall neatly into this category. For example, there are smaller manufacturers of appliances, of steel, of automobiles.

The question of whether credit restraint handicaps small business unduly is now being studied extensively by the Federal Reserve System. My own judgment will be deferred until that study is completed. At this point I certainly am not convinced that small businesses in administered-price industries escape the effects of credit restraint while those in competitive-price industries feel the effects unduly.

Agriculture is another industry on which credit restraint is alleged to have had undue impact because it is a competitive industry. We should recognize at the outset that not all of agriculture is competitive. We may admit that we do not know the answer.

We do know, however, that we had a farm problem before we had tight money. We also know that even with tight money our farmers were able to grow more farm products than the market would take. It seems likely that difficulties in the farm sector arose not primarily because it was a competitive price industry; but rather because the industry has been undergoing a basic readjustment. It was a weak industry before, during, and after tight money.

The general idea that monetary policy might have an uneven impact is not new. Few individuals would assume that a very broad-based, general control of credit must have an exactly proportionate impact on the various firms and industries within our economy. Obviously, there are times when certain sectors will be more responsive to monetary actions. The reasons for this uneven impact are not difficult to understand. A restrictive monetary policy, stripped to its bare essentials, is supposed to bring current investment spending into line with the current volume of savings.

Investment spending pretty much depends on current sales and profit margins and on an evaluation of future sales and profit potentialities. If firms are enjoying high levels of demand pressing on current capacities, and if it appears demand will grow as the economy expands, these firms probably will be inclined to increase spending for inventory and to enlarge productive capacity. This is especially the case if current price levels are enabling good profit margins. Firms with less buoyant demand, somewhat dimmer prospects, and poorer profit positions are not so strongly inclined toward freewheeling spending on inventory and new plant capacity.

A policy of credit restraint probably will seem to have a much more immediate and drastic impact on the latter firms. The firms themselves will be more readily discouraged by the increased cost of borrowing. In addition, lenders will tend to screen out these firms as less creditworthy than some others. These seemingly obvious points must be pressed to show that these differing demand and profit positions, which explain the uneven impact of monetary policy among firms, can also explain its uneven impact among industries.

Surely, during any boom period the demand for the products of some industries is stronger than that for others. Investment spending of these industries will seem less affected by credit restraint than others where demand pressures and profit positions are not so strong.

I have presented this analysis to indicate why I am not convinced that market structure was responsible for such uneven impact as the credit restraint in 1956 and 1957 may have had. This, of course, is not the same thing as saying that administered-price industries respond to credit restraint in the same way as competitive-price industries. They probably do not.

Prices in administered-price industries very possibly respond somewhat slowly to changes in demand. In these industries the initial responses to a decline in demand are likely to occur in cutbacks in production and employment. Competitive-price industries probably respond in a different manner. Prices in these industries are more

likely to be immediately sensitive to changes in demand. Changes in production and employment would come about somewhat more slowly.

If this likely sequence of responses is accurate, it has implications for monetary policy. Since a large fraction of our measured prices are set by administrative action, it may mean, for example, that the Consumer Price Index is a tardy indicator of the impact of monetary policy.

3. Should the monetary authorities direct their policies toward achieving a predetermined rate of growth of the economy?

A rising standard of living in the sense of more goods and services to consume is made possible only by an increase in real output per capita. Let us admit that growth is desirable; it does not follow that monetary policy should be directed toward achieving a predetermined rate of growth each year. It is possible that policies directed toward that goal could actually inhibit long-term growth.

Economic growth is compounded from many ingredients. One of the most important is that some individuals are motivated by an insatiable desire to comprehend the universe of which we are a part and devote their lives to what has been called basic research. It is the men of genius in basic research who have contributed most to our progress. I believe such individuals flourish most in an environment of freedom. In the interest of growth, I would promote such an environment rather than place on it the limits that might be necessary to achieve a specified rate of growth in the short run.

Related to basic research in achieving growth is technological progress. Technology embraces the application of a wide range of human knowledge to the productive process. It includes scientific discoveries as well as the invention of new machines and new processes of production. The development of new seeds and improved breeds of livestock has contributed significantly to the increase in agricultural output. It was the work of scientists which led to such significant discoveries as synthetic fibers, plastics, electronic products and processes, and atomic energy. Restless minds and scientific research are the sources of innovation—in materials, in productive processes, in machines, and in managerial skills.

New discoveries and new inventions in themselves, however, add little to our total output of goods and services. There remains the problem of fashioning an efficient process for producing the product, building a plant and equipping it with the necessary machinery, and developing a market in order that the product may be produced in volume. This is the work of the entrepreneur. For scientific discoveries and innovations to be fruitful, substantial sums are usually required for investment in plant, new machinery, and equipment.

Another ingredient of economic growth, therefore, is saving and investment. If we are to have the investment that technological progress requires, we cannot consume all of our current output. There must be saving—abstaining from current consumption—to release resources for the capital goods needed in expanding our productive capacity. The more we consume, the higher our current standard of living but the slower our rate of economic growth. The more we save and invest the lower our current standard of living, but the more rapid our rate of growth.

Productive capacity is determined by the character as well as the total volume of investment. Some types of investment contribute to productive capacity more than others. Investment in houses and durable consumers goods, for example, usually adds less to productive capacity than investment in manufacturing plant and equipment and in mining.

Mobility of resources is another ingredient of economic growth. Technological progress means change. Change is the essence of a dynamic growing economy. As industries producing new products expand, those producing products rendered obsolete decline. Growth will tend to be more rapid, the more promptly labor and capital shift to meet changing demands. Attempts to support or prop up declining industries, by postponing the shifting of resources, retard the rate of economic growth.

Another ingredient of growth is the intensity and nature of the desires of the public. People work because they want something—more food, better clothing, an automobile, a home, better education for their children, more security. In this country a strong desire for such things has been a powerful force in stimulating demand for goods and services, and in providing the human and material resources necessary to produce them. With a lesser desire for material things our rate of economic growth would undoubtedly have been slower.

The rate of growth thus depends largely on choosing among alternatives—choices that involve basic social as well as economic values. In the present state of international tension, adequate defense is essential for our security, and to protect our freedom. If we are to preserve our way of life, defense needs must have priority in the allocation of our resources. The large volume of expenditures required for adequate defense provides strong support for a high level of total output. It also provides a strong tendency toward instability. As new weapons are discovered, old ones are rendered obsolete. Labor, plant, and equipment must be shifted from the old to production of the newer type weapons. The recent shift in emphasis from aircraft to missiles is a case in point. Even though total defense expenditures remain the same, a shift in the pattern of expenditures may result in declining production and employment in some industries and an increase in others.

Another choice that has a significant influence on our rate of economic growth is the division of current output between consumption and saving and investment. This raises a baffling question, particularly with a standard of living as high as that which now prevails in the United States. To what extent should we abstain from consumption and reduce our current material standard of living in order that posterity, which, barring a nuclear war, will almost certainly have a higher standard in any event, may have an even higher standard of living? What is the optimum blend of consumption and saving, in terms of human welfare—social and spiritual as well as economic?

Growth also depends in part on our relative preference for progress and security. Technological advances open up new opportunities but they also inflict losses and hardships. Some of our existing investments are rendered obsolete and workers trained and experienced in the older technology may find that their services are no longer in demand. Temporary unemployment and losses on existing investments are a part of the price we pay for changes which contribute to

Harold R. Hottel, President

growth. The desire to protect existing investments and jobs frequently leads to attempts to delay the introduction of new and improved technology. The price of such temporary security, however, is a slower rate of economic growth.

Another factor influencing the rate of growth is the proportion of our population employed and the number of hours worked per week. The larger the proportion of the population employed and, within limits, the longer the hours worked per week, the higher output per capita will be. Should the labor force be enlarged by encouraging youths, women, and older people to take jobs? Would the additional output thereby achieved be worth the sacrifices involved in terms of the education and training of youth and life in the home? Which would provide greater satisfaction—more leisure or having the larger amount of goods which might be produced by working longer hours?

Directing monetary policy toward the attainment of a predetermined annual rate of growth involves some basic difficulties. One is that a decision as to specific rate of growth to be used as a target involves appraising a whole range of intangible human values. How does one determine whether it is economically and socially desirable to consume less now in order to have more in the future? To undergo temporary hardships and insecurity to promote progress? To have substantial inequality in income which would provide a stronger incentive for individual effort and initiative? Or to use more of our time for work and less for leisure? Choices such as these have a significant influence on the welfare of the individual as well as that of society as a whole.

A second difficulty is that monetary policy has little direct influence on the principal ingredients of economic growth. It is not an effective means for directly influencing research and the rate of technological progress; promoting individual freedom and initiative; or encouraging people to work more rather than to enjoy more leisure. It is for this reason that undue emphasis on growth as such would tempt the authorities to search for more effective weapons. Directing the flow of credit to "preferred" uses is an obvious possibility. Should we elect to go down that road, I fear we would discover in due course that we had created more problems than we had solved and that our actual rate of growth or our current standard of living would be less.

My conclusion is that monetary policy can make a significant contribution to growth. It can make its maximum contribution, however, by promoting an economic environment favorable to growth not be seeking to achieve a predetermined rate of growth.

Monetary policy will make its maximum contribution by promoting a reasonably full use of resources at a reasonably stable level of prices. An appropriate supply of credit and money should be made available to foster rather than inhibit growth. Beyond that, however, the factors determining the precise rate of economic growth can best be left to the decisions of individuals rather than to the monetary authorities or any central agency.

In conclusion, I appreciate your invitation to express my views on the vital matters before you. I have done my best within the time limit that you mentioned in your letter of February 17, 1958, to Mr. Williams.

Sincerely,

KARL R. BOPP, *President.*

FEDERAL RESERVE BANK OF CLEVELAND,

April 14, 1958.

Mr. SAMUEL D. McILWAIN,

Counsel, Senate Finance Committee
Washington, D. C.

DEAR MR. McILWAIN: This is in response to your telephone request of April 10, regarding the printing of the central document of the Reserve banks presidents' answers to Senator Byrd's 17 questions.

I am pleased to provide you with two copies of the following material which has been lifted out of my report:

1. Monetary Policies Since 1941: (a) Graphic summarization (17 pages, plus 8 sheets (1 set only) of original art work).
2. Objectives of Economic Policy (1 page).

The first item above represents pages 3-19 of my report; the second consists of most of the contents of page 53 of my report.

I should like to emphasize that my report did not incorporate all of the text of the central document. In fact, a considerable portion was omitted in order to avoid an undue amount of repetition. The omissions, however, did not, in my opinion, alter the general sense of the central document.

Sincerely,

W. D. FULTON.

PART I. MONETARY POLICY SINCE 1941

(A) GRAPHIC SUMMARIZATION

Monetary history from 1942 to 1957 falls readily into 8 successive phases, each of which differed quite significantly from its predecessor in terms of the prevailing economic environment.

The 8 phases are discussed in chronological order in the following 8 pairs of pages. On the *left* page there is indicated the type of monetary action which was *theoretically* appropriate in view of the concurrent behavior of average prices and of the general trend of economic activity. On the *right* page there is a review of the developments which *actually* occurred in the realm of monetary affairs.

It will be noted that the type of monetary policy suggested by the movement of *prices* was not always compatible with that suggested by *contemporary trends in economic activity* (production and employment).

Period covered: 1942 to mid-1945.
 Appropriate monetary policy suggested by—

Trend of prices

RESTRAINT

(In the face of rapidly rising incomes, prices were relentlessly moving upward, either by reluctant sanction, or by threat of black markets.)

Trend of economic activity

RESTRAINT

(Pressure of demand was almost continuously in excess of capacity to produce.)

THE HISTORICAL RECORD

Monetary restraint, however desirable theoretically throughout the war period, was almost totally foreclosed by the following announcement shortly after Pearl Harbor:

The Federal Reserve System is prepared to use its powers to assure that *an ample supply of funds is available at all times for financing the war effort*, and to exert its influence toward maintaining conditions in the United States Government security market that are *satisfactory from the standpoint of the Government's requirements*.

In the face of the national emergency, a commitment of this type seemed almost inescapable. It proved unfortunate, however, that so large a part of the war's cost was financed by means of an inflationary expansion of bank credit.

Pursuant to the foregoing commitment, over the period the Federal Reserve System purchased \$19 billion of United States Government securities. It is true that most of this acquisition (\$18 billion) served merely to offset the concurrent drain on member-bank reserves caused by the outflow of currency (into circulation) and gold. Nevertheless, in view of the \$3½ billion excess reserves already in existence at the time of Pearl Harbor, combined with some further additions of new central bank credit during the war, member banks were able to expand their holdings of United States Government securities by nearly \$53 billion. Accordingly, the Nation's money supply (checking account balances and currency) more than doubled during the 3½-year period.

Period covered: Mid-1945 to mid-1946.

Appropriate monetary policy suggested by—

Trend of prices

Trend of economic activity

RESTRAINT

EASE

(Prices rose sharply as war-accumulated purchasing power pushed against a continuing shortage of many civilian goods.)

(Considerable unemployment developed while readjustment to civilian economy was taking place.)

1945

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28	29	30	31	1	2	3	4	5
6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	1
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11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28
29	30	31	1	2	3	4	5	6
7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	1	2
3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29
30	31	1	2	3	4	5	6	7
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1946

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JUL	AUG	SEP	OCT	NOV	DEC

THE HISTORICAL RECORD

In view of the subsequent boom it is a matter of some curiosity that bank credit expanded only very moderately during the reconversion phase. The expansion occurred in the form of bank loans (not investments), where a 10 percent expansion presumably expedited conversion to civilian production.

The wartime commitment regarding interest rates on United States Government securities presented no problem to the System during this 12-month period. Long-term money rates in particular reached record low levels without active intervention by the System. System purchases of United States Government securities (\$1.9 billion, net) were only enough to offset a concurrent further outflow of currency.

During this interval margin requirements on stock-exchange collateral were increased in 2 steps from 50 percent to 100 percent. Also, somewhat later, the one-half of 1 percent preferential discount rate on short-term Government securities was discontinued.

DEC	NOV	OCT	SEP	AUG	JUL

JUN	MAY	APR	MAR	FEB	JAN

JUN	MAY	APR	MAR	FEB	JAN

Period covered: Mid-1946 to late 1948.

Appropriate monetary policy suggested by—

Trend of prices

Trend of economic activity

RESTRAINT

RESTRAINT

(Removal of wartime controls permitted the full force of war-accumulated purchasing power to push prices to record high levels.)

(Under conditions of relatively full utilization of all economic resources, enlargement of the credit base merely accentuated upward pressure on prices.)

1946

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THE HISTORICAL RECORD

The System was virtually powerless to counteract the inflationary potential of a \$4 billion influx of gold, because it was still committed to support the pattern of interest rates established in 1942. The money supply increased only moderately (albeit to a new alltime high), but a significant expansion (55 percent) occurred in bank loans. This active use of bank credit contributed greatly to inflationary pressures. Fortunately (in view of the inflexibility of monetary policy), inflationary influences were being dampened by the continuously large cash surplus of the United States Treasury.

During this interval, the discount rate was raised from 1 to 1½ percent, in 2 steps. The System also was freed from the wartime commitment of having to peg the 91-day Treasury bill rate at three-eighths percent. Likewise, war-loan accounts (at member banks) were made subject to reserve requirements. Finally, the percentage of required legal reserves was raised by approximately \$3 billion by action of the Board of Governors. The potentially restrictive effect of this last-named action was largely neutralized, however, by concurrent purchases of an almost equivalent quantity of United States Government securities.

The cost of money and credit did rise appreciably (from a low level) during this interval, but not enough to exercise any significant restraint on credit expansion. The Treasury surpluses exerted some restrictive influence, but the System itself was limited to fringe action by the pattern-of-rates commitment.

In terminating the 100-percent margin requirements in January 1947 (to 75 percent) after a sharp reaction in stock prices, the System recognized that the boom was no longer being supplemented by speculative activity in securities.

Period covered: Late 1948 to early 1950.

Appropriate monetary policy suggested by—

Trend of prices

EASE

(Average prices began to recede after mid-1948. By late 1949, wholesale commodity prices reached a 2-year low.)

Trend of economic activity

EASE

(The unemployment situation indicated the existence of considerable unused capacity and idle resources which might be activated by easier credit conditions.)

JEC

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1949

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THE HISTORICAL RECORD

In response to the softening of commodity prices and the diminished rate of industrial activity, the System pursued a policy of monetary ease throughout 1949.

The major move was represented by 2 series of reductions in the percentage of required reserves of all 3 classes of member banks, and covering time as well as demand deposits. The reduction in requirements was equivalent to the creation of nearly \$4 billion of excess reserves.

Since, in the absence of any contravening measures, that reduction could have become the base for an excessive expansion of the money supply, the System concurrently undertook to reduce its record-size portfolio of Government securities to the lowest level in the postwar period—in fact, since 1944. Enough liquidity was permitted to remain in the banking system, however, to accommodate a \$6 billion expansion in member-bank holdings of United States Government securities.

Quantitatively, the supply of money did not change much on balance during 1949, but the cost of money declined noticeably, not only in the capital markets but also with respect to bank loans to business. The wartime commitment to support prices of United States Government securities presented no immediate problem while the bull market in such securities lasted.

The discount rate remained unchanged at the comparatively low level of $1\frac{1}{2}$ percent.

In March, margin requirements for stock-exchange collateral were reduced to 50 percent (from 75 percent).

JUL	MAY	APR	MAR	FEB	JAN
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JUL	MAY	APR	MAR	FEB	JAN
DEC	NOV	OCT	SEP	AUG	JUL

Period covered: Early 1950 to mid-1953.

Appropriate monetary policy suggested by—

Trend of prices

RESTRAINT

(A vigorous upthrust in prices was precipitated by the Korean war. The Consumer Price Index shortly broke into new high ground and was nudging upward during most of this 2½-year period, despite some retreat of wholesale prices from speculative peaks reached early in the war.)

Trend of economic activity

RESTRAINT

(In terms of industrial production, recovery from the 1949 contraction was full and complete before the Korean invasion. Except for some months of hesitation during late 1951 and early 1952, there was no cushion of idle resources or capacity. Inflation of bank credit would merely accentuate the upward pressure on prices.)

THE HISTORICAL RECORD

Upon the outbreak of the Korean war, the still-standing commitment to support Government security prices (which had been of only nominal significance in the recessionary year 1949) suddenly reemerged as a roadblock to the application of effective monetary restraint against a surging inflationary wave. During the first 8 months of the Korean outbreak, the System created \$6 billion of member-bank reserves in the course of purchasing Government securities from sellers who wished to obtain funds for other purposes.

During those 8 months, the System had at its disposal (to combat inflation) only such measures as increasing the discount rate (to 1½ percent), invoking controls over consumer installment credit, and promulgating the new regulation X to curb real-estate credit expansion. Margin requirements were upped to 75 percent (from 50 percent). Reserve requirements also were increased \$2 billion (January 1951).

All of these measures combined, however, were relatively powerless in the face of the rapid rate at which new central-bank credits were being created. Fortunately, from the point of view of monetary management, a considerable portion of these credits were being offset by a strong outflow of gold.

Following the accord between the Treasury and the Federal Reserve System (March 1951), credit policy was designed "to limit bank-credit expansion to amounts consistent with the requirements of a growing economy at a high level without inflation."

The continuing demand for long-term capital as well as bank credit eventually pushed money rates to a 20-year high (May-June 1953). The discount rate had been upped to 2 percent in January of that year. In February, margin requirements were reduced to 50 percent, since no substantial increase had occurred in the use of credit in the stock market.

Period covered: Mid-1953—late 1954.

Appropriate monetary policy suggested by—

*Trend of prices**Trend of economic activity*

NEUTRALITY

EASE

(Prices did not decline but remained relatively stable—at virtually the alltime high.)

(Official end of hostilities in Korea was followed by a substantial cut in defense requirements. Readjustment from "war economy" was accompanied by contraction in employment and production.)

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THE HISTORICAL RECORD

Beginning in May 1953, the System embarked first on a policy of relieving the tension in the money markets and then of actively promoting credit ease.

Reserve requirements were reduced in July 1953 and again about a year later. The amount of excess reserves created in the 2 actions was estimated at \$2.8 billion. The striking consequence of the reductions was a record increase in the loans and investments of member banks. The \$16 billion expansion (in 18 months) caused the Nation's money supply to expand by a record peacetime amount and induced a high degree of liquidity in the economy as a means of stimulating industrial recovery.

The cost of short-term money fell to a 7-year low in 1954. Early that year the discount rate was lowered in 2 steps to 1½ percent (from 2 percent). The cost of long-term funds also declined to the lowest in several years.

1953

JUN	MAY	APR	MAR	FEB	JAN
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1954

JUN	MAY	APR	MAR	FEB	JAN
DEC	NOV	OCT	SEP	AUG	JUL

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Period covered: Late 1954 to late 1957.

Appropriate monetary policy suggested by—

Trend of prices

RESTRAINT

(Early in 1956, consumer prices began to break out on the upside into new alltime high ground. Wholesale prices had begun a renewed climb almost a year earlier.)

Trend of economic activity

RESTRAINT

(By late 1954, the economy was back on an "overtime" basis. Many materials also seemed to be in short supply. Any undue expansion of the credit base would merely have aggravated the upward pressure in prices, and would not have resulted in any more employment or production.)

THE HISTORICAL RECORD

Fairly early in 1955 it became the policy of the System to permit no further cyclical expansion of member bank reserves. Temporary additions for normal seasonal purposes were not allowed to become a permanent part of the credit base but were largely withdrawn after each need had passed.

As a consequence of this policy, the \$20 billion increase in member bank loans was financed largely by a concurrent liquidation of member bank holdings of United States Government securities—at almost constantly declining prices. (Member banks also increased their borrowings somewhat in order to meet the extraordinary demand for business, installment, real-estate, and other loans.) Accordingly, the contemporary expansion in demand deposits was held to the smallest proportions recorded in any business boom for at least 30 years. Only the less volatile time deposits expanded appreciably.

The continuing strong demand for credit and capital, in the face of a nearly static credit base, produced a steady rise in the cost of money. In order to keep the discount rate in reasonable relationship with open-market money rates, the rate was increased from 1½ percent to 3½ percent in a series of steps beginning in April 1955 and ending in August 1957. Margin requirements against stock-exchange collateral also were increased (from 50 percent to 70 percent) during the early months of this period.

Comment: If the System had capitulated to all of the pleas for "more credit," the boom presumably would have risen to greater and more untenable heights, and the ensuing readjustment might have been much more drastic and difficult.

100 THE FINANCIAL CONDITION OF THE UNITED STATES

Period covered: Late 1957 to date (March 31, 1958).
Appropriate monetary policy suggested by—

Trend of prices

Trend of economic activity

RESTRAINT

EASE

(Despite the industrial recession, prices continued to creep sharply in the fall of 1957. Thus, upward thereby further depreciating the purchasing power of savings.)

(Industrial activity declined without reference to the price situation, a policy of credit relaxation was clearly appropriate.)

1957

JUL

DEC

1958

JAN

FEB

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THE HISTORICAL RECORD

The complete history of the current period cannot be written until the next phase has taken over. Yet it may be recorded here that the System has used all three major instruments of general credit control for the purpose of mitigating recessionary tendencies and of establishing a sound base for a renewed expansion in industrial activity.

The discount rate was brought down in several stages from the long-time high of 3½ percent, to 2½ percent. Legal reserve requirements of member banks also were reduced by roughly \$1 billion. Meanwhile, purchases and sales of United States Government securities were of such a nature as to permit member banks to reduce their indebtedness to the reserve banks from a level of nearly \$1 billion (September–October 1957) to almost zero.

Changes in the supply of money have been somewhat slow in reflecting these several developments, but there has been a vigorous expansion in member bank "loans and investments" in recent weeks, with possibly much more to come as a result of the latest cut in reserve requirements.

The decline in the cost of money has been one of the sharpest on record.

Margin requirements on stock exchange collateral were reduced to 50 percent (from 70 percent) in January 1958.

The remainder of the historical record of this period will depend not only upon the course of economic activity and prices during the coming months, but also upon the extent to which the effects of actions already taken are yet to be felt in full.

PART III. OBJECTIVES OF ECONOMIC POLICY

The question calls for our judgment of the relative importance of objectives of economic policy. The reply below begins with a brief summary of our position and follows with a more detailed consideration of question 6.

SUMMARY

1. The three objectives should be considered as of broadly equal importance. (Price stability, employment stability, sustained economic growth.)

2. None of the three should be interpreted in terms of a target of 100 percent fulfillment—all can be taken in a relative sense.

3. By its very nature, objective number 3 (growth) does not require a stipulated quota of performance each year.

4. Such general objectives in relative terms can be posited, even in the absence of specific arithmetic criteria (i. e., allowable percentage of unemployment or tolerable creep of prices).

5. From a theoretical standpoint, we believe that the three objectives are generally compatible. Furthermore, we see no empirical evidence in the historical record which compels the conclusion that the three objectives must be considered mutually incompatible, although the practical difficulties of reconciliation are painfully obvious. There has as yet been little experience in a full-scale testing of monetary-fiscal policies, applied in a sustained and determined manner, to achieve price stability without sacrifice of the other two objectives.

6. As a practical or political matter, price stability is often relegated to a junior order of precedence. We believe that its relative rank could be elevated to a position of approximate equality with the other objectives.

FEDERAL RESERVE BANK OF RICHMOND,
Richmond, Va., March 31, 1958.

HON. HARRY F. BYRD,
Chairman, Committee on Finance,
United States Senate, Washington, D. C.

DEAR SENATOR BYRD: This letter is in reply to your request of February 17 for my thoughts and opinions on some of the vital matters which affect our economy.

The list of questions which you suggested as a guide to this reply raises such basic and far-reaching issues for consideration within a short period of time that it seemed desirable for the presidents of the Federal Reserve banks to join in preparing a series of comments concerning them. A copy of these comments is attached, and I trust that they will prove useful to you in providing information on the broad subjects which your questions encompass.

Your inquiry centers on three major questions in areas within which the Federal Reserve System has special responsibilities: (1) What are the objectives of economic policy and, more specifically, of monetary policy? (2) Is our present monetary system adequate to the task of achieving these objectives? (3) How well has monetary policy performed in recent years? The following comments relate to these aspects of the inquiry.

Our country's economic objectives are clear: stability in the value of the dollar and the avoidance of instability in production, employment, and income, and through these two, the attainment of sustained economic growth. I am firmly convinced that these objectives are not only compatible but are in fact interdependent. I can think of

no basis on which to rank economic objectives in order of their relative importance, for their interdependence makes each important to the others as well as important in itself. At any given time one objective may be deserving of more emphasis than another, but this must be judged in the circumstances of the time. For example, during World War II all three of our objectives were shouldered aside to assure adequate financing of the war effort, and in 1953-54 actions needed to combat declines in production and employment planted the seeds of later price increases.

Mass unemployment is viewed by many as the major economic threat confronting the country, while the evils of price inflation are less evident and therefore seem less menacing. Concern—quite proper concern—over the distress of unemployment tends frequently to obscure the more widespread injustices of inflation. This may have resulted, as some observers state, in greater pressures on the Government to combat unemployment with less regard to future price problems. There may be a reluctance to combat price increases, through action in the early stages of the boom, for fear of choking off an upturn in the economy. Whether this is the case or not, the belief has apparently spread that our economy has within it an inflationary bias that cannot—or will not—be successfully combated by Government action.

Stability in the value of the dollar has many desirable features of equity as an end in itself but, even more important from an economic standpoint, it is absolutely necessary if instability of production and employment and interruptions to growth are to be avoided. Experience has demonstrated again and again that chronic price increases make impossible the maintenance of high and rising levels of employment and production. Notwithstanding the lessons of experience, it has been suggested that a "creeping inflation," defined as a mild and controlled inflation amounting to perhaps 2 or 3 percent a year, would be worth the price in terms of its contribution to growth and prosperity. This I deny. The whole concept of creeping inflation is dangerously misleading, for a chronic inflation cannot be either mild or controlled. If the public in general, and business in particular, should become convinced that a continuous loss of purchasing power were inevitable, the incentive to save would be greatly reduced, the incentive to spend sharply increased, and the end result could only be an acceleration of inflationary pressures. The process would tend to feed upon itself and eliminate any possibility that the pressures could be controlled within narrow limits. Efforts to avoid the consequences of inflation by some groups through escalator clauses and other means could only temporarily insulate a portion of the economy at the expense of the remainder and lead to serious problems for our present economic and social order. These favored groups would still face, with the rest of the population, the inevitable aftermath of an unsustainable boom.

Even if inflation could be held within narrow limits approximating a price rise of 2 or 3 percent per annum, widespread suffering would result. This relatively minor increase in prices, if continued each year, would lead to an erosion of the purchasing power of the dollar of about one-half in the course of each generation. Millions of elderly and disabled Americans living on fixed dollar pensions and annuities would find even their modest standard of living threatened. Millions

of others on low and inflexible salaries would similarly experience further reductions in their living standards. Other millions would face a loss of a substantial part of the real value of their savings, and the incentive to save would be seriously impaired.

The question of the adequacy of the entire monetary system is so broad that I could not undertake to give a complete answer. I should like to comment, however, on several of the aspects of this question with which I have firsthand knowledge, particularly the manner in which the monetary mechanism serves as a device for bringing monetary policy to bear upon the economy. Many features of the monetary mechanism have proved so adequate as to be taken more or less for granted in recent decades. A flexible supply of currency—a problem of great concern a half century ago and one of the principal reasons for bringing the Federal Reserve System into existence—has long been assured through the operations of the Reserve banks. Seasonal and growth needs for changed amounts of coin and currency are met with routine ease; recurring seasonal periods of credit stringency have become a thing of the past. All forms of money are readily exchanged into other forms, and each day millions of individual payments are made with little regard to distance through the operation of the check collection machinery of the Reserve banks and their members. A smaller number, but an extremely large dollar amount, of telegraphic payments are daily effected well-nigh instantaneously through the books of the Reserve banks, and the revenues of the United States Government are speedily mobilized and efficiently utilized with little concern over the multiplicity of individual transactions required. In short, these parts of the machinery of the United States monetary system function so well as to make a positive contribution to the efficient operation of our economy and the attainment of our economic objectives.

As I indicated, the monetary mechanism is a device for bringing monetary policy to bear on the economy. Demand deposits of commercial banks, which serve as our principal medium of exchange, stem primarily from deposits of currency and coin and from loans and investments made by the banks. Legal reserve requirements set by the Board of Governors of the Federal Reserve System, within the limits fixed by the Federal Reserve Act, make it necessary for member banks to maintain with their Federal Reserve banks reserves equal to a given proportion of their deposits. Therefore, before the banks can create new demand deposits through new extensions of credit, they must have available reserve funds in excess of legal requirements. Demand deposits issued in exchange for currency and coin offer no problems, of course, since some portion of this currency and coin can be surrendered to the Federal Reserve to augment the member bank's reserve account, thus enabling it to meet the requirement. For the banking system as a whole, there are a number of factors which affect the total volume of reserves available to the banks for additional loans and investments and, consequently, the creation of additional deposit money. The principal of these factors are changes in the Nation's monetary gold stock, changes in money in circulation, changes in the Treasury's account at the Federal Reserve banks, and changes in Federal Reserve credit outstanding.

When the net result of these influences is an increase in reserves available to member banks, there is a strong tendency for these reserves

to be employed either in loans or in investments, with a consequent expansion in the money supply. When the net effect is to drain reserves from the banking system, attempts by individual banks to secure reserves will cause a decline in the money supply. Thus the reserve positions of the Nation's commercial banks are the key to their extensions of credit. This particular type of credit extension is in its turn of unusual importance because it puts purchasing power into certain sectors of the economy without first removing it from other sectors, as is the case when any nonbank financial institution extends credit to its customers.

This crucial money-creating role of reserves makes them a fulcrum through which Federal Reserve monetary policy actions can be magnified into forceful and pervasive influences on the entire credit structure of the economy. To illustrate, the Federal Reserve may purchase Government securities in the open market and add to the volume of reserves outstanding, thus enabling member banks to increase bank credit. Or, as was done in February and again in March of this year, the Board of Governors of the Federal Reserve System may reduce the reserve requirements of the member banks and, while not altering the total volume of reserves outstanding, free a large amount of reserves to provide the basis for new deposits.

The influence of Federal Reserve actions on the reserve fulcrum extends to other sectors of the credit structure because of many intricate and necessary relationships among the various sectors. When the Federal Reserve, for example, purchases Government securities in the open market, it does so as one of the many participants in the market, all of whom exert some influence on the prices which exist there. In addition, however, by increasing the reserves of commercial banks, the System affects the nature and the degree of bank participation in these markets, thus providing additional effects on prices. Consequently, actions affecting the availability of reserves to member banks also affect conditions in the money market which have a pervasive effect throughout the credit and capital markets.

One other Federal Reserve credit policy instrument also affects the reserve fulcrum and reaches directly into the credit markets. Changes in the discount rate change the cost of borrowing reserves at the Reserve banks and in the market as well, since short-term market rates are related to the discount rate. Even more important, the announcement of a discount rate change may affect market expectations by indicating the direction or intensity of credit policy.

Changes in the credit and capital markets have far-reaching effects throughout the economy. Rising security prices tend to make financial institutions more liquid because investments can then be sold on a more favorable basis than in the immediate past. Consequently other demands for credit, such as that for mortgage loans, tend to be met more readily than when bond prices are declining and capital losses may be involved in any conversion of funds. Furthermore, rising bond prices—declining interest yields—lead to reappraisals of the most profitable allocation of the loanable funds available to the institutions. Rising security values also affect the spending and saving decisions of individuals and business firms that hold securities or may find it attractive to do so.

In addition to affecting credit extensions by banks to their business and individual customers and affecting conditions in the credit mar-

kets, a changed availability of bank reserves directly affects other financial institutions through their credit transactions with banks. Many nonbank financial institutions rely heavily on short-term bank credit to support their own lending activities. For example, mortgage companies employ short-term bank credit to acquire mortgage loans for resale to ultimate mortgage lenders, such as insurance companies and mutual savings banks. The ultimate mortgage lenders themselves have in recent years employed bank credit quite extensively to assist them in their mortgage lending programs. In another important credit field, sales finance companies use a very large volume of bank credit to support their own lending to individuals for the purchase of automobiles and household goods. When reserves are made more readily available to commercial banks, they are in a position to expand their credit extensions to these other financial institutions; conversely, when reserves are less available, there is a tendency to curtail such lending, thus driving nonbank lenders to seek other sources of funds or to curtail their own lending activities.

In this manner Federal Reserve actions influence the monetary and credit climate in which businessmen and individuals conduct their economic affairs. I should like to emphasize the fact that Federal Reserve influence is solely on the credit climate in which private and public spending decisions are made. The System does not make any of the millions of daily decisions on production, pricing, purchasing, investing, and a host of other aspects of the private economy; these decisions are private decisions, dictated ultimately by the consumer through the mechanism of the market place. In short, while a proper monetary policy is indispensable to the achievement of our national economic objectives, it cannot by itself guarantee stability and growth.

As to how well the role of monetary policy has been performed within the framework of our monetary system, I should like to comment briefly on your question concerning the System's policies since 1942. At the outset, let me emphasize two caveats applicable to any critical review of past actions: First, hindsight provides information and perspective not available at the time decisions were made; second, even with this hindsight, an evaluation of policy actions against the record of actual events is confronted by facts and statistics that are not there—what would have happened in the absence of the policy actions taken.

Both of these caveats affecting the validity of present judgments may be illustrated by any attempt to judge now the feasibility and desirability of an earlier abandonment of the System's policy of supporting Government securities in the immediate post-World War II years. The effectiveness of the System's restraint policy in the early postwar period was undeniably inhibited by the continuance of support operations. Having been involved directly in the decisions at that time, I still feel that the apprehension, both within and outside the System, as to the consequences of abandonment of the support policy was fully justified in the light of such factors as the more-than-fourfold increase in the public debt in the short space of 5 years, the constant refunding problems of the Treasury, and the distribution of the debt that had evolved under a system of price supports, with many holdings judged to be very sensitive to price changes. In effect, monetary policy in the immediate aftermath of war had to be sub-

ordinated to the considerations that prevailed during wartime; so far as I know, no abrupt termination was advocated by any responsible authority. The fact that the support policy was successfully abandoned in 1951 is no assurance that chaos in the market might not have resulted from an abandonment in early postwar years.

The period from the spring of 1951 to the spring of 1956 was characterized by marked price stability and economic growth. From the spring of 1951 through early 1953 the System took measures to reduce availability and increase the cost of credit in order to deter excessive spending at a time when the economy was operating on an expansionary or overtime basis generating inflationary pressures. A shift in System policy in mid-1953 corresponded with what subsequently had been identified as a turning point in the business cycle and the beginning of a moderate downturn.

As a result of System operations during the recession from mid-1953 to the latter part of 1954, bank lending was facilitated and a decrease in the money supply was avoided. In addition, the easier credit availability provided support for mortgage and consumer lending and for financing by utilities and by State and local governments. The increased liquidity of the banking system resulting from this easy-money policy automatically created problems for later monetary policy in that the impact of subsequent tightening actions was delayed. While there is certainly a point in the development of liquidity beyond which further increases cannot be expected to contribute to recovery, it must nevertheless be remembered that the function of monetary policy in recession is to provide increased liquidity—as it is to reduce liquidity during periods of excessive expansion—and that in the difficult task of drawing the line as to the proper degree of liquidity, errors are likely to be made on the side of too much rather than too little ease.

In late 1954 and early 1955, as the recovery movement gathered momentum and expansion became more apparent, System policy shifted quickly toward restraint. Inevitably this restraint policy, which continued until the latter part of 1957, resulted in curbing some spending that would have taken place if the restraint had not been present. The primary purpose of restraint was to curb the aggregate demand for goods and services. It could not curb aggregate demand without reaching into the specific plans of individuals and business enterprises. This inevitably caused some dissatisfaction among those most affected.

More recently, as economic developments have been characterized by a recessionary movement, System policy has shifted toward ease. Since last November there has been an unprecedentedly rapid drop in the cost of credit and a substantial increase in its availability that already appears to be having some cushioning effect both in maintaining the money supply and in lending support to mortgage financing and to other sectors of the economy where debt is important to demand.

From a review of monetary policy in action since the spring of 1951, I conclude that in spite of many obstacles it made a significant contribution to the overall objectives of economic growth and stability at the highest sustainable levels of production and employment. It was always in the right direction. Whether the degree of restraint or ease prevailing at any given time was too much or too little is a matter on

which judgments may differ. Those who refer to the actual price rises over the period as indicative of a failure of monetary policy neglect both the factors operating on prices that lie outside the scope of monetary policy and the certainty that in the absence of System efforts directed toward restraint there would have been much more price inflation, followed by more severe corrective adjustments.

Monetary policy is indispensable but it is not all-powerful, and, because of its inherent limitations, too much should not be expected of it. Some of the obstacles to monetary policy have recently become more clear. Prices and wages have shown expansionary tendencies when the economy was booming—as might have been expected—but have shown startling rigidity during the current as well as the most recent recession. This is attributable to factors outside the direct influence of the Federal Reserve System, but it gives me great concern. The loss of flexibility in prices restricts the capacity of business and labor to adjust to changes in demand and reduces the power that flexible market processes give the ultimate consumer in determining the uses to which the Nation's productive forces are to be put. Monetary policy certainly cannot function at its best when wage increases persistently exceed the rise in productivity for the economy as a whole or when prices are held rigid in the face of declining demand.

The task of monetary policy has also been made more difficult by the high rate of taxation needed to support a high level of Government expenditures; high tax rates have dulled the cost consciousness of businessmen and have diminished the effectiveness of high interest rates during periods of restraint. In the related field of debt management, while some progress has been made by the Treasury in its efforts to achieve less frequent financing, more progress along these lines would give monetary policy a better chance to operate effectively.

It is my sincere hope that the hearings being conducted by your committee will bring about a better and wider public understanding of the nature of the broad, long-run objectives of the Nation's economic policy. The Federal Reserve System has been attempting for many years to do this through written articles, discussions, speeches, moving pictures, seminars for college professors, and other means, but the subject is complicated and progress is slow.

One of the least understood of these long-range economic objectives is stability in the purchasing power of the dollar. This lack of understanding relates not only to the widespread and serious consequences of a persistent erosion of the purchasing power of income and of savings, but also to the fact that such stability is absolutely essential to our achieving maximum economic growth under continuing high levels of employment and income. Public understanding of the suffering caused by inflation and of its effects on the Nation's productive processes should be as clear as public understanding of the evils of unemployment.

The problem of maintaining a stable dollar is a challenge not only to the monetary authorities but to all others who are in positions of public responsibility. I hope that you and your committee will devote particular attention to this issue.

Sincerely yours,

HUGH LEACH, *President.*

FEDERAL RESERVE BANK OF ATLANTA,

April 3, 1958.

HON. HARRY F. BYRD,

*Chairman, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR SENATOR BYRD: Please pardon the delay in getting to you a response to the questions accompanying your letter of February 17.

The questions are important and searching. As we have studied them here at the Atlanta bank it has seemed to us that many of them are not subject to definitive answers—at least we are not able to give such answers.

So the comments that follow serve simply to emphasize what are admittedly points of view on some of the problems encompassed in the questions posed. Since the questions were addressed to the presidents of all the reserve banks, the presidents have developed a far more complete discussion jointly and copies of that discussion, I believe, are being transmitted to the committee.

Questions 1 and 2

Inflation is most easily defined in terms of its immediately visible result, which is a general depreciation in the purchasing power of the dollar or, viewed from the opposite side, a general rise in prices. There are other indirect results that do not lend themselves to the definition.

Many circumstances may predispose an economy to inflationary developments. A principal circumstance is an effort of the economy, overall, to operate above its level of efficient capacity. Inflation occurs as the result of, or in the permissive presence of, an effective money supply—that is, quantity times rate of spending—that exceeds the supply of goods and services offered at, or capable of being produced at, existing price levels. The money aspect of inflation thus involves a matter of quantity plus a psychological element, that is, the willingness of people to spend.

Peacetime fluctuations in the general price level can be moderated by limiting the reserves available to the banking system in times of boom, thus limiting the banking system's ability to extend additional credit, and by increasing the supply of bank reserves during recessions, thus increasing the banking system's ability to extend new credit. Even such restraining and stimulating effects cannot have a perfectly calculated result because the rate of use of the money supply depends in large part on the voluntary spending and saving decisions of individuals and business firms. In a free society, people cannot be forced to borrow or spend in a deflation, nor can they be prevented from using their own funds during an inflation—they can only be discouraged from the use of borrowed funds.

Neither inflation nor deflation can be completely avoided in a free economic system. Complete avoidance would require rigid controls not only over the prices and quantities of goods and services, but also over the allocation of manpower and other productive resources to their myriad uses. Furthermore, controls, complex and numerous enough to prevent inflation or deflation, unless it be assumed that the administration is perfect, would only mask and conceal the mis-

use or disuse of productive resources—the basic economic evil of inflation and deflation.

Legislation aimed at avoiding either inflation or deflation by direct measures would put the economy into a harness of controls that would, in the long run, seriously injure the dynamic characteristics of the economy—its ability to shift rapidly from less wanted to more wanted goods and services and from less efficient to more efficient producers' instruments. Indirect measures of economic stabilization—monetary policy and, if necessary, fiscal policy—are still the best methods of dealing with inflation and deflation in a free society.

Questions 4 and 7

The causes of the increase in the consumer price index beginning in August 1956 were of long standing.

Following the letdown in economic activity at the end of the Korean war, American business generally embarked upon a program of capital expansion to enlarge productive capacity through projects long delayed by the depression of the 1930's, World War II, and the Korean war. By the fall of 1955, this capital expansion program began to exert substantial pressure on the economy.

The pressure was increased because American consumers, who had fairly well maintained their spending in late 1953 and 1954, despite the recession, substantially increased their rate of spending in mid-1955, and sales of consumer durable goods reached levels exceeded neither before nor since. Federal spending, although down substantially from 1953 levels, was still high, and spending by State and local government units, financed in part by credit expansion, increased almost enough from 1953 to 1956 to offset the decline in national security expenditures.

At both the consumer and wholesale level, prices of a substantial number of items had been rising before 1956, but the upward adjustments in some components had been masked by the fall in the prices of food and farm products following the Korean war peak. Still another element acting on prices in the recent period has been the continued catchup of prices fixed by public agencies—freight rates, utility rates, taxes, etc., which did not reflect current conditions but were rather long overdue adjustments to the change in the price level arising from World War II.

These causes, and there are others, show that no single cause was responsible for the rise in the Consumer Price Index. In sum, the economy was pressing on the upper limit of its productive capacity, and the competition for goods and services, arising from nearly all quarters, caused a bidding up of prices and a depreciation of the dollar.

Among the factors not to be overlooked was a growing conviction of the American people that there would be a continuous loss of the dollar's value, and that, therefore, it was wise to rush, even with unneeded expenditures, in order to have protection against such a loss. Some part of the pressure on total resources represented a flight from the dollar; and the credit restraint was apparently inadequate, at least until the very last stages of the boom, to convince many that a long-run depreciation of money was not inevitable. In any event, the quantitative restraint on the volume of credit was partly offset by an increasing rate of use of the money supply.

Questions 6, 11 (b), and 15

There is no conflict between economic growth and stability of prices. Nor is there a conflict between the goal of stability in prices and the goal of stability in production, demand, and employment. Indeed, stability in prices seems to be a necessary condition for stability in production, demand, and employment around a long-run growth trend: insofar as fluctuations in aggregate economic activities are induced by changes in the price level, over the long run they almost certainly result in a less than maximum utilization of resources and also in a lower level of efficiency than would be attained if the price level remained reasonably stable.

Since the end of World War II, general public policy has sometimes subordinated strictly economic objectives of stability and growth to other national objectives—necessary military security and desirable decontrol of the civilian economy. Broadly speaking, until 1951 monetary policy was primarily aimed at preservation of stability in interest rates, particularly those of Government securities. Such a policy was justified on grounds that possible unsettlement of financial markets was not only a threat to the goal of full employment but was undesirable from the standpoint of national defense and the unsettled foreign situation which might require Federal borrowing at any time. But the objective of stability in one price—interest rates—was achieved partially at the expense of stability in the general price level. Since 1951 monetary policy has been free to recognize the importance of general price stability as a major factor in long-run economic stability and sound growth.

Although inflation may temporarily induce a fuller utilization of productive resources than would otherwise be the case, the misapplication of productive resources is almost certain to create distortions in the economy that become increasingly difficult to adjust the longer the inflation runs. The result of inflation is thus an economic euphoria that has a grave cost: it ultimately produces a good deal more unemployment—or misemployment—of productive resources than would be the case in its absence.

In the long run, it seems reasonable to believe that the net of the inflation-deflation cycle is a reduction rather than an increase in the average employment of productive resources, including manpower. In the short run, however, some variation in prices and employment must be expected and is, in fact, one means by which a free-market, consumer-dominated economy adjusts itself to consumer wishes and to the most efficient productive processes. The complete elimination of such variation, as noted aforetime, cannot be accomplished without imposing direct, detailed, and administered economic controls repugnant to the American tradition of economic freedom, and less efficient than the free market.

No more dangerous economic doctrine exists than that enunciated in recent years that continuing inflation is necessary to maintain high employment goals and growth. Inflation victimizes those who make their savings in money and instruments repayable in fixed money amounts, the immediate effect of inflation being the transfer of purchasing power by means of money depreciation from moneysavers to other classes of society. The small possible additional production stimulated by inflation is gained only at the cost of discouraging savings in money or fixed money obligations. Relieving the public of

part of its savings through a depreciation of money not only induces spending most often when it should be curtailed, but is morally repugnant to all who value honesty in financial matters.

Finally, inflation, however modest its annual increment, when long continued diverts people's energies from efforts to produce goods and services efficiently to efforts to protect themselves against depreciation in the value of money. Acceptance of a national policy of gradual inflation would be disastrous to the moral fiber, economic well-being, and military security of the American people.

Question 9

Fiscal policy relates to the effect upon income creation and aggregate spending produced by Government expenditures, taxation, and debt creation and liquidation. Monetary and credit policy, however, operate only indirectly upon aggregate expenditures by making borrowing and spending less attractive in times of boom and more attractive in times of recession.

Theoretically, there seems no reason why fiscal policy, by variations in Government expenditure, taxation, and debt creation or liquidation, could not contribute to economic stability. That is, the Government could increase its utilization of the country's resources as manpower and materials are readily available or diminish it as these resources are being sought after by other users. Practically speaking, however, the difficulties of using fiscal policy in that way, as our experience seems to show, are immense.

National defense considerations, resource development, highway programs, and a host of similar necessary or desirable public projects will nearly always—though, perhaps, in some cases they should not—take precedence over more general economic considerations in determining Federal spending and revenue needs. Decisions in such matters must be primarily related to the worth of the project as against its cost and are not likely to be effectively related in the short run to the aggregate spending or lack of spending in the economy. It is thus probable that fiscal policy will not be notably flexible in determining aggregate economic spending and, at least in the short run, pressure or lack of pressure on economic resources. The advantages of continuity of planning and programing in most governmental undertakings are great, and the very immensity of the Federal apparatus makes both the adoption and administration of appropriate and timely decisions difficult.

The foregoing emphasis on the difficulties of fiscal policy as an anticyclical device is not intended to exclude the idea that fiscal policy could be, and in some situations should be, used for economic stabilization. What is intended is merely to emphasize that it is not an instrument readily adaptable to every minor fluctuation. Of necessity it must be reserved for more serious situations in which, say, the level of unemployment could be considered to override other aspects of public policy. Of necessity, moreover, it seems that deliberated fiscal policy is only applicable in situations of long enough duration to permit the Government's marshaling its weapons.

Questions 10 (a), 10 (b), and 14

The monetary system of the United States as now constituted has been adequate to meet the country's requirements for a means of

payment and, certainly, for credit expansion. However, if the banking system is to remain adequate to the task of extending the bank credit that a growing economy will require, then additional reserves, or a greater permissible use of existing reserves, will be needed over the years to match the sustainable growth potential of the economy. The problem of supplying to the banking system the reserves that will be needed does not appear to be difficult of solution over the course of the next several years, but over the longer run the problem is likely to require a good deal of thought, particularly with regard to the most desirable means of providing the reserves.

The fiscal system of the Federal Government has been adequate in the postwar period to carry out those expenditure programs that have been judged by Congress to be in the national interest. In the light of all postwar economic developments, it would have been well if Federal borrowing could have been avoided and, indeed, if some of the debt could have been retired, as was the case in the earliest postwar years, but the amount of Federal postwar borrowing, at least quantitatively, does not appear to have been a major cause of postwar inflation when measured against the size of the gross national product.

The principal problems of the postwar period have been the direct result of fiscal inadequacy in the war period, when far too much reliance was placed on borrowing, especially through bank credit, and far too little reliance was placed on taxation and on borrowing the savings of the public. The resulting expansion in the money supply brought in train an almost inevitable inflation, to which most of the postwar economic problems are directly and importantly related.

The adequacy of the fiscal system to meet the expenditure requirements of the Federal Government, however, is not the whole test of the system's long-run economic soundness. The size of the tax take, and the sources on which levied, may be having an important effect on the monetary savings available to the American economy, and may exert an inflationary pressure by promoting the substitution of bank-credit expansion for real savings.

Questions 13 and 17

Causes of the present recession stem largely from the exuberance of the preceding boom, when the volume of spending pushed up faster than the volume of available goods, when speculative commitments in inventory were stimulated, and when manpower and other resources were used inefficiently. Capital-goods spending during the boom was at an unsustainable rate, and anticipated reductions in plant and equipment expenditures coincided closely in time with a much-publicized phasing out of certain elements of defense procurement by the Federal Government.

The amelioration of an economic downturn is, in general, more easily accomplished early in the course of a recession than later when the private economy has lost some resiliency and may, indeed, be frightened. Nevertheless, at present, because there is danger of a long-run inflation and probably less danger of a long-run recession, and because the burdens of the Federal Government are stupendous, fiscal measures to relieve a recession should not come before there is reasonably convincing assurance that something more than a relatively minor economic adjustment is involved. We should avoid

further maladjustments of the economy that will result if our procedures serve only to create an expectation of inflation.

Unfortunately, there is no mechanical approach or single figure or group of figures that reveal precisely when the Federal Government should move into the problem in major ways, such as tax cuts or large increases in public works. The matter must remain one of judgment. The general principle, especially in view of the hazards of economic forecasting, would seem to be that the most moderate measures should be applied earliest and measures of increasing impact applied only when and if the more moderate measures seem to be failing. In general, this would mean that major fiscal policy moves, which almost inevitably at some later date increase the budgetary difficulties of the Government, should be instituted only after it is apparent that self-correcting forces and monetary measures are not adequate to prevent a serious recession from gathering momentum.

The factor of production whose underemployment we are most concerned with is manpower. Because of the hazards of economic forecasting, the figures that should be primarily watched, so far as the motivation of major fiscal-policy moves is concerned, are not consumer demand, production, or others of that nature, but the direction of change, relative amount, and duration of unemployment.

Question 16

The growing prevalence of escalator clauses in recent years is more nearly a symptom rather than a cause of inflation. Such contractual provisions chiefly represent the attempts of parties to contracts to protect themselves from one of the immediate and visible adverse effects of inflation. They are but one manifestation of a vast array of economic decisions motivated, in an inflation, by the search, not for efficient production or needed consumption but for protection from money's decline.

Please let me express again my admiration for the searching character of the questions presented.

Sincerely yours,

MALCOLM BRYAN, *President.*

FEDERAL RESERVE BANK OF CHICAGO,

April 15, 1968.

HON. HARRY F. BYRD,

Chairman, Committee on Finance,

United States Senate, Washington, D. C.

DEAR SENATOR BYRD: This is in reply to your letter of February 17 in which you refer to the inquiry entitled "Investigation of the Financial Condition of the United States" and request my thoughts and opinions concerning certain matters affecting our economy.

I welcome your suggestion that the list of questions enclosed with your letter serve merely as a guide, and I will confine myself to areas in which I hope that my comments may represent a contribution to your investigation. Those areas are:

1. The importance of price stability to the attainment of our economic goal.
2. Factors which have contributed to the inflation we have experienced in recent years and thereby to the current recession.

3. The growth of private debt as a threat to the stability and vitality of the American economy.

4. Fiscal policy and the desirability of reducing expenditures, taxes, and debt.

I will refrain from comment on the monetary control policies of the Federal Reserve System within the years 1942-57 because I have been connected with the System for only a small part of that period and anything I might say would be a matter of hindsight.

I am not a professional economist. Most of my business life has been devoted to commercial banking and to manufacturing, of which I can claim some knowledge. My comments will necessarily stem in large part from my experience in those fields.

1. The importance of price stability to the attainment of our economic goal

Our goal is maximum employment, production, and purchasing power, which means that we seek sustainable economic growth. I do not think we can have sustainable economic growth under conditions of either sharp or continuing periods of inflation or deflation. A relatively stable general price level is an essential condition to the attainment of our goal.

An interesting question in your list refers to the relationship to one another and the relative importance of price stability and economic growth in production, demand, and employment. In my judgment they complement each other and one does not exist for long without the other; we will not have sustainable economic growth unless we have price stability, nor is it likely that we will have price stability for any appreciable length of time unless we have sustainable economic growth. They are natural partners and it is unnatural to seek opposition or priority between them.

In referring to price stability I do not mean a condition where there are no changes in individual prices. In a free market economy new products continually challenge the supremacy of old products, tastes change, and more efficient ways of producing and distributing existing products are found. When prices are free to reflect changes in consumer demand, increases in some individual prices may be offset by decreases in others. Flexibility in individual prices is a necessary condition for overall stability in all prices.

I have said that price stability is a partner of sustainable economic growth. The record of recent years and months provides proof of that statement. Changes in the general price level tend to be cumulative and rising prices, especially when they are more or less continuous, distort the outlook for business profits and consumer income. Businesses are tempted to engage, and they do engage, in unsustainable expansion programs and excessive accumulation of inventories. Marginal businesses, which in the normal course of events would be reorganized, defer remedial action, and live by the illusory profits of rising prices. But the time comes when the expansion which accompanies and contributes to rising prices ceases to be sustainable.

2. Factors which have contributed to the inflation we have experienced in recent years and thereby to the current recession

Except for a few welcome intervals the purchasing power of the dollar has declined steadily for almost 20 years. In assessing the causes I would start with what is often called the great depression. Beginning with that economic disaster and carrying on through the

1930's, civilian demand and business activity were less than normal for a country of our size and potentialities. Then came the war when our energies were necessarily directed to armament, and the desires and needs of our people for civilian products were properly subordinated. And so the end of the war in 1945 marked the end of a period of 15 years during which production of civilian goods had been curtailed, and a tremendous deferred demand for such goods had been created. Not only had the demand been created, the means to satisfy the demand had been accumulated. Our people had set aside substantial amounts of savings from their wartime earnings. The level of consumer debt was unusually low.

It is important to note that the huge sums required for financing the war were raised in large part by methods which produced rapid expansion of bank credit and the money supply. Unfortunately, only 40 percent of the funds obtained were raised through taxation, and an excessive portion of the balance was derived from the sale of securities to commercial banking institutions, resulting in creation of new supplies of money. The expansion of bank credit and purchasing power contributed to the buying power of our people in the postwar period and to the inflationary pressures which, held in abeyance in large part by wartime regulations, became active when those regulations were removed.

The end of the war, then, found us with two powerful ingredients of inflation, the deferred demand for civilian products on the one hand and the substantial increase in purchasing power on the other. Also, and very important, were the inflationary impulses caused by the use of Federal Reserve credit in endeavoring to maintain a uniform price for Government securities; no discussion of the course of inflation can leave that out. It was not surprising under the circumstances that our country experienced the development of an unprecedented amount of business and expansion. Nor was it surprising that prices rose under such circumstances.

There was intense competition for materials, and there was a sellers' market. There was competition for labor and the unions succeeded with few exceptions in securing annual increases in wages and other benefits. Selling prices were increased, but the deferred demand assured a high level of business. And as I have mentioned, accumulated savings and the increase from the low level of consumer debt at the end of the war contributed in a substantial way to the buying power of our people. Our industries built new plants at an unprecedented rate. It all added up to the greatest peacetime activity this Nation has ever known.

But it also brought a correspondingly severe decline in the value of the dollar. There have been a few welcome interruptions, but speaking of the period as a whole we have not had price stability for almost 20 years. Since 1939 the dollar has lost more than half its purchasing power.

I have stated my belief that we cannot enjoy sustainable economic growth unless we have price stability. Yet we have experienced substantial economic growth in the period from 1945 to 1957, and at the same time suffered the decline in the purchasing power of the dollar to which I have just referred. I have named two powerful ingredients which permitted that anomalous situation. But I am convinced that the current recession is the result of unsustainable growth in recent

years. It is an example of the truth that sustainable economic growth and price stability are inseparable companions.

I have referred to the success of labor in securing annual increases in wages and other benefits as understandable under postwar conditions. That does not mean that I believe labor was wise in taking such full advantage of those conditions. Nor do I feel that management was wise in granting all of the increases and benefits and increasing their own selling prices without regard to the ultimate effects on a sustainable market. But both acted under the laws of the country and the market place, and so long as it was possible to increase selling prices without reduction of markets, their judgment, at least for the short-term, could appear to be justified. But the day of reckoning made inevitable by constantly rising prices was sure to come, and the adjustments which must follow are made more difficult by certain aspects of labor contracts and apparent disinclination of manufacturers to reduce prices to invite demand for their products. According to the Department of Labor, more than 4 million workers are eligible for increases in wages in 1958 contracted for in prior years. And adding further to costs is what is known as the cost-of-living formula. Most of the workers receiving deferred wage increases have contracts which include the cost-of-living feature.

You ask the question "Are escalator provisions in wage or other contracts compatible with achieving economic stability?" I do not believe that they are helping in achieving economic stability and I doubt if they will in the long run prove beneficial to either labor or management. When falling demand and price increases exist side by side, as they do today, the escalator provisions contribute to higher costs and militate against the price flexibility which is essential to sustained economic progress. And in periods when inflationary pressures reflect heavy and rising demand, escalator clauses add fuel to the fire. They add an uncontrollable factor to the controllable factors which are the proper subjects for the negotiating table.

Let me repeat that the action of labor and management in building cost rigidities into our cost structures has not been surprising under the conditions which have obtained in the postwar years. Labor, noting substantial corporate profits and dividend disbursements, and led by energetic leaders striving to outdo each other, sought more for its services. Meanwhile management, naturally aggressive and competitive, sought to grow in size and in profits. With its eye constantly on the percentage of profit markup it has not been duly concerned over the rapid increase in labor and transportation costs because a percentage of those costs has been added to its profit margin. And so it has gone on in some cases until both labor and management have overreached themselves and priced their product into a limited and shrinking market. They have themselves to blame for their excesses, but they adhere to the traits of human nature and seek out a culprit on the one hand and a savior on the other. Labor turns to industry as the culprit and to the Government as their savior. Industry points to labor as the culprit and to the Government as their savior. The culprits are different, but unfortunately the hoped-for saviors are the same—the Government.

The answer to both their problems, if we are to establish and maintain stable prices, is to reduce costs and prices until a ready market for their products is again obtainable. Price flexibility is

essential to sustained high levels of output, and it will be a sad day for our private enterprise economy if governmental intervention replaces price flexibility as the equilibrating mechanism.

3. The growth of private debt as a threat to the stability and vitality of the American economy

One of your questions suggests that the growth of private debt in recent years may have become a threat to the stability and vitality of the American economy. I believe that to be the case, and I would include public debt as well because that is the debt of the people just as surely as their own private debts. They must both be serviced and paid out of private income.

In this matter of private debt we can choose from several courses of conduct, with different results attendant on each choice. If we choose to exchange our goods and services with each other without borrowings, we may avoid business fluctuations but our charted curve of economic progress will be rather flat. If we borrow and spend today a moderate part of our future earnings we will add to our normal current spending and will progress faster, but we run some risk of eventual curtailment of spending in order to pay some of our debts. If we choose to borrow excessively and progressively we will contribute to rapidly rising prices and we will find ourselves in an inflationary spiral which means spending not only our current but too much of our future earnings as well. Moreover, the inflation depletes the value of our past savings invested in savings deposits, life insurance, bonds or other fixed dollar assets. This is truly burning the candle at both ends.

In my judgment, the increase in private and corporate, as well as public, debt which has taken place in recent years has been excessive and has contributed in a substantial way to the rise in the general price level and to the current recession. Borrowing capacity is a desirable attribute; it should and usually does bear witness to character and earning ability. And utilization or availment of borrowing capacity in moderation contributes to progress and to economic growth. But excessive and progressive borrowing should be avoided. Borrowing capacity can be fully used only once; when too many people have borrowed to the extent of their capacities, they have in the process contributed to inflationary pressures; and they have fully depleted the reserve which unused borrowing capacity represents. That reserve could be useful in combating the recession which invariably follows the period of inflation.

We have no way of knowing the extent to which the borrowing capacity of the private sector of our economy has been fully utilized. We do know that private debt has increased substantially and progressively for many years. And I am distressed at the encouragement to debt which I seem to see on every hand, for a lender can do no greater disservice to a borrower than to lend him a sum beyond or near his reasonably assured ability to repay. The records of our lending institutions show that even the most experienced and conscientious lenders will occasionally err on the liberal side.

And when I refer to experienced and conscientious lenders I think principally but not exclusively to our commercial bankers. In my judgment most of them are doing a creditable job. As a general rule they extend credit with the long-range best interests of the borrower

in mind, among other reasons because a relationship which includes business additional to borrowing is often involved. The sound commercial banker is concerned not only with the financial health of his customer today or next month, but with his financial stability also in the years to come. Not so with some banks and some other lenders who are active in today's market. Too often the desire is only to make loans which add to the volume, which are sufficiently well secured and which will earn interest, to the end that the lender will show a profit without considering the hardships which the borrowers may suffer in liquidating their indebtedness. In the course of 32 years in banking and industry I have seen many individuals and business concerns in serious distress because they borrowed excessively. I have never seen anyone in trouble because he did not borrow.

In principle I favor less rather than more Government supervision or control, and I believe that a call for Government intervention in our business or financial structures is more often a needless and costly confession of failure than a solution. But the number and the activity of credit-granting intermediaries outside of our chartered banking institutions has grown so substantially in recent years, and the level of private debt has increased to such a degree, that in my judgment the public welfare calls for a review and recommendations by competent and unbiased persons. I am hopeful that the examination of our monetary and credit institutions to be made by a commission organized by the Committee for Economic Development will prove illuminating and helpful in this highly important field.

4. Fiscal policy and the desirability of reducing expenditures, taxes, and debt

Fiscal policy, to which several of your questions relate, is an important influence in our economy because of the high levels of Government expenditures, taxes, and Government debt. In my judgment, a program for the reduction of those related items is urgently needed in the interest of the financial stability and sustained growth of our economy. Such a program will necessarily be long-range, but the sooner it is adopted and a start made, the better for our country.

There are principles of debt management which have been proven and are accepted in the area of private debt. In my judgment, they apply also to Government borrowing. When debt is certain to be outstanding for an extended period, every effort should be made to extend its maturity and to do so in periods of relatively low interest rates to the end that the carrying charges will be less. A measure of the quality of financial management in private business is the timing of its security issues, and the successful manager is he who matches the maturity and amount with his requirements and does so at opportune times, that is, at rates which are attractive from the standpoint of the borrower. I am familiar with the view that our Government should not borrow on a long-term basis in a period of low interest rates because such a period is usually one of a recession in business. The Government, so the argument goes, should not compete with private borrowers at that time. Over the years I have become convinced, however, that the proven principles are as sound and as desirable for our fiscal managers as for private borrowers, and that, in view of the size of our Government debt, every opportunity to extend its maturity at attractive rates should be seized. If the Gov-

ernment is not to compete in the money market with private concerns, then it should have no debt; as long as it has any debt it must compete to its best advantage or be faithless to its people. Further, I believe that when the levels of business activity and tax collections are high, the debt should be reduced, and I regret that debt reduction has not been accomplished in the postwar period.

But we are more concerned with the future than with the past, and I have expressed my opinion that a program of reduction in taxes, expenditures, and debt should be undertaken. To consider taxes first, I regard our personal and corporate tax rates as excessive. For reasons which I will mention later, I recognize that immediate reduction in substantial amount is not feasible, but, if a program of progressive reduction over the years were adopted, the results would, in my judgment, be salutary.

Articulate proponents of tax reduction and the elimination of inequalities have advanced convincing arguments before congressional committees and elsewhere. I will try to refrain from repeating what has been said many times. But I will draw briefly on my experience in banking and industry, first with regard to personal taxes and then in reference to corporate taxes.

The current rates of tax on personal income discourage the incentive of gain which has contributed so much to the growth and prosperity of our country. I know from personal observation that the possibility of making money, and of keeping or spending it according to taste, has been a powerful and a desirable stimulus to hard work and creative effort. And I believe that the point of diminishing return created by highly progressive tax rates has in many cases dwarfed the incentive, deprived us of the full benefits which derive from the application of our best minds, and averted wise and constructive decisions.

In the course of my business life, too, I have known many successful industrial corporations—companies employing thousands of our citizens and producing items which contribute to our high standard of living—I have known many such companies which started with little more than an idea in the brain of a talented young man. At that time the young man could successfully solicit capital subscriptions, perhaps from his friends and neighbors who were familiar with his character and impressed with his idea. The investment carried risk, often substantial risk, but the possible rewards were substantial too. If the business succeeded, the dividends to the shareholders were, in large part, total gain. But today the friend or neighbor is reluctant to back the talented young man. The element of risk may be the same, but the possible reward under current tax rates is quite different. Probably the best-known example of the type of situation to which I have referred is Henry Ford, but there are countless other business organizations which started under similar conditions and which are important and prosperous today.

I believe, also, that corporate income-tax rates are too high for the good of the country. Parenthetically, let me say that, although I use the words "corporate tax," the evidence is all to the effect that corporate income taxes are borne by the corporations' customers. The average ratio of net income after taxes in recent years has been much the same as in earlier periods of high activity when tax rates were much lower. Generally speaking, corporations have been able to treat the tax on profits as an item of cost and to add it to selling

prices. They have no other income than from the sale of their products or services, so where else can the tax be but in their selling prices? The corporation is, in effect, a tax collector rather than a taxpayer. And that is necessarily the case, for the corporation must earn a sufficient profit after taxes to interest stockholders and, if the business is growing, to attract additional capital.

But I favor lower corporate income-tax rates because I can say I know that high rates promote wasteful expenditures and contribute to inflation. Business management, however competent and conscientious, is influenced by the 52-percent tax rate, and tax considerations weigh heavily on corporate decisions. I am sure that in periods of great activity and high corporate profits, when inflation is a matter of particular concern, the tax rate is a factor in expenditures which add to inflationary pressures.

I would urge tax reforms, too, in the area of excise taxes, many of which were designed to help finance the war effort and at the same time to dampen the demands for particular goods and services which were then in limited supply. Selective excises possess a number of potentially harmful characteristics. They discourage consumer consumption of the taxed items relatively to other goods and services, and distortion of free consumer choice does not contribute to maximum output in a free economy. Excises which enter into business costs, such as those on transportation and communications, may be pyramided at each stage of the productive process and inflation the prices of finished goods out of proportion to the revenues derived by the Treasury. This has been a factor which contributed to relatively greater increases in the prices of manufactured items as compared with raw materials.

I have advocated a program of tax reduction to become effective progressively over a period of time. And I say over a period of time because I would prefer to see nothing which would contribute to a reduction in our tax receipts until we find it possible to reduce our expenditures. As mentioned earlier in this letter, we have suffered grievously from inflation in the past 20 years, and, while inflationary pressures appear relatively inactive at the moment, their resurgence is an ever-present possibility and source of anxiety. Government deficits under such conditions are, of course, undesirable.

But I am hopeful that the efforts to reduce Government expenditures will continue and will be successful. In the light of world tensions, adequate defense measures outweigh all other considerations, and I am aware that a large portion of our expenditures are allied in one way or another with defense, but if we have the will I am sure we can find ways to reduce the civilian portion of the budget, and continuing study of defense expenditures may bring additional efficiencies in that area. In private life in times like this we do not ask ourselves, "Is this something we would like to have?" but, rather, "Is this not something we can do without?" I recommend that philosophy in Government spending.

Reduction of our Government debt will necessarily await either reduction of expenditures, increase in income, or both. I have expressed my regret that the size of the debt has not been cut in the period of prosperity which we have enjoyed in recent years. Our failure to effect a reduction under those conditions gives rise to the query as to when we can expect to make progress in the area and adds

to the fears of those who are concerned about further inflation. At the same time, it doubtless encourages the advocates of inflation, those few who seem to feel that continuing inflation at some modest rate is both desirable and possible. It also adds materially to the cost of servicing the debt, for the rates applied to a steadily diminishing debt are less than proportionate for those applied to a constant or increasing debt.

As I review what I have said in this letter, I realize that, out of the many approaches to the road to inflation, I have emphasized the approach which becomes a commercial banker—that of incurrence of debt and its consequences. Over the years, I have noted that neither happiness nor prosperity were the natural concomitants of debt; rather, personal and corporate financial difficulties were always attendant with too much debt. I have noted that excessive borrowing brought discord and unhappiness into homes, and that peace and concord were often the possessions of a couple with moderate indebtedness or no debts whatever.

These observations over the years have caused me to wonder why some of those in authority keep insisting that more and cheaper loans be not only available from public moneys but that they be urged upon those they wish to favor—farmers, small-business men, and veterans. In my judgment, a really helpful service would be to seek ways of getting them out of debt rather than into it.

I feel, too, that we must constantly remind ourselves that in our democracy the people are the Government—the farmers, small-business men, veterans, and laboring men and women, employed and unemployed—they are the Government and when the Government creates deficits, or borrows and spends, or borrows and gives, it is the same thing as all those people I have named going deeper in debt personally. There is no magic purse to be tapped and refilled. To-day, for instance, when private credit has been so fully utilized in an inflationary orgy, should the people be plunged into deeper debt by proxy, as it were?

I repeat that in my judgment we must find a way to reduce the debt. It will not be an easy road. Those who would reduce expenditures are seldom popular. But they are respected and they are earning the respect of future generations as well, for the adoption and pursuit of sound fiscal policies will bring cumulative benefits. We must take the hard road because it is the right road and for the sake of the America of tomorrow.

Permit me to express my appreciation for the opportunity to comment on the highly important matters which are under consideration by your committee.

Sincerely yours,

CARL E. ALLEN.

FEDERAL RESERVE BANK OF ST. LOUIS,
St. Louis, Mo., March 31, 1968.

HON. HARRY F. BYRD,
Chairman, Committee on Finance,
United State Senate,
Washington, D. C.

MY DEAR SENATOR BYRD: I am pleased to respond to your request for comments along the lines indicated in your letter of February 17.

1958, and the questionnaire appended thereto. I must say at the outset, however, that I lay no claim to professional economic expertise on the highly technical questions propounded, to which the Nation's leading economists have devoted much study and research—and, I may add, without always achieving agreement. In matters of this kind it is my practice to turn to members of the professional economics staff of the Federal Reserve System for technical assistance. Indeed, such is the function of a professional staff. In the present instance, I have found the replies prepared by a committee of Federal Reserve System economists to contain a great deal of information which is helpful in considering your questions. Two copies of these replies are enclosed.

On reading the material prepared by the professional economists, I find little that I, as a practitioner of the art of central banking, could add on such technical and theoretical questions as are discussed. However, I do feel that I might supplement these replies with certain observations which center on the role of the Federal Reserve System in contributing to the achievement of the objectives of public policy.

In one of your questions a judgment is asked concerning the relative importance of three objectives of economic policy in the United States: price stability; stability of production, demand, and employment; and economic growth in production, demand, and employment. The form of the question, I believe, carries with it a possible implication of inconsistency among these three objectives. Yet the basic goal served is the material well-being of our people. Contemporary policy directed toward this goal may well vary in relative importance from time to time. In the longer run I see no conflict among the objectives set forth in your question. Rather than accept an implicit premise of inconsistency, I should be inclined to hold that reasonable price stability is itself a condition for a relatively stable, healthy, and growing economy. I find it difficult to accept the view that instability in the general level of prices is, in some fashion, a necessary condition of a healthy economic organization.

Since I hold this view, I should like to place additional emphasis on monetary aspects of the discussion of inflation and deflation contained in the other materials enclosed with this letter. My observations will be confined to what I believe to be some of the principal outlines of the problems posed by price instability, inflation, and deflation, for monetary authorities. It will be understood, I am sure, why I pass over the many technical aspects of these matters which are discussed in the replies prepared by the professional economists.

It is helpful, I think, to define inflation in layman's language as a reduction in the purchasing power of money or, more simply, a rise in the general price level under conditions of relatively full resource utilization. Conversely, deflation may be defined as a decline in the general price level accompanying sustained declines in economic activity. The many historical examples of fluctuations in the value of money, some of which were so extreme that they could be classed as disasters, are well known, and there is no need to dwell here on their effects. But these episodes provide abundant evidence that in the highly complex and rapidly changing economies of the world today, money does not automatically remain stable in value. Price stability, we have learned, is not to be presumed.

It has also been observed in many countries and over long periods of time that changes in the money supply have been closely associated

with changes in the general price level. I do not hold to the view that there is a simple 1-for-1 correspondence between changes in the money supply and changes in the price level. Nor do I consider that changes in the volume of the money supply are the only influences which affect the value of money. The manifold other influences are discussed at length in the replies prepared by the professional economists. However, it remains true that it is the relationship between the supply of money and its value which provides the means by which monetary authorities everywhere endeavor to carry out their responsibility with respect to the purchasing power of money. By their influence over the rate of growth of the money supply, monetary authorities can and do offset in varying degree the other influences which tend to alter the value of money.

These obvious propositions are stated in order to remind us to look through the myriad details and difficulties discussed in these hearings to the basic problem underneath. In such an economy as ours, where productive effort, saving, and investment are elicited in large part by expectations of future money payments, money with a stable value in real terms is important. The central bank must continually strive to adjust the money supply in response to complex and shifting influences which often are difficult to perceive and sometimes cannot be countered as promptly as one might wish. Discussion of the practical difficulties of this task elsewhere in the technical materials submitted with this letter might create an impression that the job exceeds human capabilities, or may be too costly in terms of other objectives, such as maximum employment or economic growth, so that we must be resigned to continuing erosion of the dollar. I do not believe such depreciation is inevitable. To the contrary, recent experience both here and abroad through a period of severe inflationary stresses seems to me to suggest that swings in the purchasing power of money can be significantly moderated and, indeed, have been.

This conclusion, of course, leads directly to a discussion of the adequacy of our monetary system. To my mind the most important criterion for evaluating the adequacy of a monetary system is that which stresses the adaptability of the monetary system to the contemporary objectives of public policy. In performing this evaluation, there are two sets of questions which require answers. The first relates to the susceptibility of the monetary system to control by those who are entrusted with its management in the public interest. The second and more controversial set of questions relates to the extent to which central bank actions encourage economic decisionmaking that is consistent with the fundamental goals of public policy.

With respect to the first of these questions, the susceptibility of the monetary system to control, I think it is clear that under existing arrangements the Federal Reserve System can exercise effective control over the supply of money. The major outlines of the monetary system are well known, as are the detailed techniques of Federal Reserve System control. Therefore, I should like to direct my remarks to the second and more difficult set of questions.

Though we agree that the Federal Reserve System can effectively control the money supply, we still must ask whether this control can contribute effectively to the accomplishment of the contemporary objectives of public policy. In essaying an answer to this question, I should like to emphasize that the economic effects of monetary

action alone are limited, a point to which I shall return. The real question, however, is not whether monetary policy can go it alone, but whether the effects of monetary policy are consistent with the more basic goals of public policy in other respects.

Analysis of the monetary system in a society so complex as ours necessarily requires recognition of a host of highly specialized financial institutions, each of which plays its unique role. Some of them accumulate savings and finance real estate activity, others are engaged in consumer financing, still others assist business firms to obtain funds for expansion. However, all of these institutions—and I have suggested but a few—make use of money, which consists in minor part of currency and coin issued by the Federal Government and in major part of deposit credit on the books of commercial banks, and the total of which at any given time is referred to as the money supply. Fundamental to any analysis of the monetary system is understanding of the fact that the powers delegated to the Federal Reserve System by the Congress enable the System only to influence the rate of change in the money supply and thereby, in that sense, the magnitude of the money supply at any time.

This leads to the question, Who decides how the money supply shall be used? By way of answer one must take into account the flows of spending resulting from production, distribution, and consumption of goods and services. One must also take into account the funds made available by those who elect to save rather than spend. All things considered, the answer may be truly made that the people of the country, operating in and through their market places, their private financial institutions, and their political institutions, decide how the money supply shall be used and how fast it shall be turned over in the stream of spending. The people make these decisions, not the monetary authorities.

Essentially the Federal Reserve System stands as a moderating force in an economy which, guided by a host of individual decisions, sometimes moves too rapidly and sometimes too slowly. In a period of sharply rising economic activity when the demand for credit threatens to outpace the economy's ability to supply goods and services at stable price levels, monetary policy will be directed at restraining the growth of the money supply. The effectiveness of the restraint will be tempered by the normal responses which such a condition evokes in a free economy. An intense demand for funds coupled with a policy of monetary restraint will stimulate a more efficient utilization of the available money supply. Monetary policy, however, may compensate for this increase in the velocity of circulation. By and large, the effect on decisionmaking is such that spending on goods and services is restrained, a result consistent with the objectives of public policy.

On the other hand, when the economy is characterized by substantial excess capacity and when economic activity is declining, the effectiveness of increased availability of money and credit and lower interest rates may not be immediately discernible. This is because the complex of other factors which affect the decisions of businesses and consumers may not be conducive to immediate expansion of demand and spending. Depressed anticipations do not encourage the accumulation of debt. The effect of easing monetary policy is to produce a monetary climate which provides, to whatever possible

degree, encouragement both to lenders and to borrowers. This climate is clearly consistent with the objectives of public policy in such a situation. These remarks lead to emphasis upon this truth: That monetary policy cannot be considered as if it were conducted in isolation or in a vacuum but attains its greatest effectiveness when combined with wise and sensitive application of public policy in other areas and prudent decisionmaking in private affairs.

In my view, the adequacy of the monetary system cannot be considered apart from our perspective on a free society. For at the heart of the question of adequacy of the monetary system is really this problem: Shall our people continue to possess the prerogative of deciding in the main how their money supply shall be used? This is a profound question involving fundamental issues of political as well as economic philosophy. We can admit that democratic institutions and processes may not always provide perfect answers, because these institutions are no less fallible than their human components. It would occur to me, however, that the group judgments of the body politic, derived through the free market system, are more likely, in the long run, to be sound and acceptable than under any other alternative in sight. From this perspective and in my opinion, our monetary system serves the Nation well.

Very truly yours,

DELOS C. JOHNS, *President.*

FEDERAL RESERVE BANK OF MINNEAPOLIS,
April 3, 1958.

HON. HARRY F. BYRD,
*Chairman, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR SENATOR BYRD: In response to your letter of February 17, 1958, and the enclosed questionnaire of the Senate Finance Committee, I submit the attached comments. These are in two parts. One part was prepared under the supervision of a special committee of the Conference of Presidents of the Federal Reserve Banks and may be said to represent a consensus comment in response to the questionnaire. The other part represents my own remarks, which are designed to supplement the consensus comment.

Taken in its entirety, the Senate Finance Committee questionnaire is a most searching inquiry into judgment and opinion concerning economic policy, with particular emphasis on monetary, fiscal, and debt-management policies, and the recent economic record in the United States. In order to cover the questionnaire fully and competently, and thus be as responsive as possible to the inquiry, the Conference of Presidents of the Federal Reserve Banks decided to prepare a common or consensus reply. At the same time, it was understood that the Senate Finance Committee wanted to obtain individual points of view with respect to particular matters of concern or fields of competence of people living in various sections of the United States. Thus, the second part of the attached comments constitutes my own approach to certain aspects of the United States economy and economic policy as brought out by the questionnaire.

I am in general agreement with the statements contained in the conference document. Consequently, my supplementary comments consist primarily of discussion, giving somewhat different emphasis to certain points. In keeping with your letter and as indicated in the foreword to the first, or consensus, document, the questions have not been answered separately in the common reply, but have been used as a guide in organizing the discussion under five main headings. My supplementary statement is organized along similar lines.

May I say that I appreciate the opportunity to submit comments on the field covered by the questionnaire. I hope that the material submitted may be of some help to the Senate Finance Committee.

Very truly yours,

FREDERICK L. DEMING, *President.*

COMMENTS OF FREDERICK L. DEMING, PRESIDENT OF THE FEDERAL RESERVE BANK OF MINNEAPOLIS, IN RESPONSE TO THE QUESTIONNAIRE OF THE SENATE FINANCE COMMITTEE, APRIL 1, 1958

PART I. ASPECTS OF INFLATION AND DEFLATION

Comments grouped under this main heading cover, generally, the points brought out by questions 1, 4, 6 (b), 11 (a), 12, and 17 in the Senate Finance Committee questionnaire.

The careful and thorough analysis presented in the consensus comment on these questions has my virtually complete concurrence. My own discussion merely emphasizes certain points a little differently from the consensus comment.

The economic record of the past 12 years, in my judgment, shows 3 key trends—2 highly favorable and 1 unfavorable. The two favorable trends are tremendous total economic growth and a higher than prewar productivity; the unfavorable development is a strong inflationary trend. The prime question of the moment is how quickly can the economy recover to the 2 favorable trends; the prime question for the future is can these 2 favorable trends be maintained over time and the unfavorable trend be eliminated so that the value of our currency remains stable.

Since the end of World War II, our economy has functioned remarkably well in several important respects. The massive unemployment which was expected to result from the large decline in Government expenditures for war materials and from the release of millions of men by the Armed Forces failed to materialize. Rather, resources were transferred from the production of war goods to other endeavors with little unemployment, despite the abnormally high rate of growth in the civilian labor force occasioned by the return of veterans plus normal growth factors. The transition from war to peace was accomplished with far less economic distress than had appeared likely.

Subsequently, employment opportunities continued to appear, with the exception of the relatively minor recessions of 1949 and 1954, in approximately sufficient numbers to absorb the net increase in the labor force which occurred in every year but one of the postwar period. In 1957, the civilian labor force averaged 10 million more than in 1946, while unemployment averaged virtually the same as in 1946.

Thus, one of the conditions required for satisfactory economic growth, jobs for those seeking work, was largely met in the postwar

years. Another condition of economic progress, rising productivity per unit of labor, also was met to a greater degree than had been considered normal by productivity statisticians. Chiefly as a result of improved productivity, the real gross national product could grow by an estimated 44 percent from 1946 to 1957 while employment was increasing by just 18 percent.

Productivity depends to a large degree upon the size of the stock of capital with which labor must work. Thus the rate of capital investment has a powerful bearing upon the success we achieve in efforts to lift our living standards. A high rate of business spending for plan and equipment, accompanied by the continuous improvement in technology characteristic of the American economy, in the postwar period made possible the large productivity gains and was a major factor in the rising per capita real income.

Such business spending did add to the competition for scarce labor and materials and hence must be associated with the inflationary forces of the period. It is unfortunate that Government (Federal, State, and local) expenditures and some consumer spending could not have been held to lower levels during this period to make more room for the capital boom which was enlarging our industrial capacity. Could that have been done, inflationary pressures would have been reduced. The major impediment to reducing Federal Government expenditures, of course, was the Korean war and the very heavy defense expenditures during the whole post World War II period.

In this connection it seems important to me to stress the points that most of the inflation of the past 12 years came as a result of war and part of the remainder may be more statistical than real. These points have considerable bearing on the problem of preserving stable currency values in the future.

An inspection of the price index charts reveals that most of the postwar inflation occurred in the 2 years following the removal of price controls in 1946 and during the initial months of the Korean war. In contrast, during 1953 the consumer price index averaged only 3.1 percent higher than in 1951, while the wholesale index averaged 4.1 percent lower than in 1951. During that entire 3-year period unemployment averaged less than it had been in any of the other postwar years, previously or subsequently.

The real gross national product in 1953 was estimated to be 8 percent over the 1951 figure; employment in 1953 averaged less than 2 percent above 1951. An important lesson of the period is that impressive economic growth and relatively abundant job opportunities can prevail for more than just a few months, in an environment of marked price stability. The lesson suggests that most of the dollar's loss of buying power was occasioned by war and that the chances for price stability in peacetime should not be gaged by the experience of the entire postwar decade.

Further, it might be observed that success in achieving price stability should not be measured exclusively by an index of prices. No index has yet been devised which can adequately measure changes in the satisfaction which is derived from the expenditure of a dollar. Because of the constant improvement in the quality of products and services included in the price index and the continual appearance of entirely new products, and extension of the range of choice, it is likely

that the real worth of a dollar has declined by less since 1940 than the 100 percent increase of the Consumers Price Index suggests.

However, the imperfection of our yardsticks does not mean that money cannot lose purchasing power, nor does it detract from the importance of preserving the dollar's buying power. It does suggest that the meaning of small changes in the price index is not always clear and that while economic policy should not ignore the indexes of prices, neither should it be wedded to them.

The foregoing does not mean to imply that monetary and fiscal policies and other instruments of public policy can be held blameless for part of the upward swing in prices. In retrospect it appears that monetary policies which permitted less commercial bank credit expansion and fiscal policies which placed greater emphasis on debt reduction could have fostered greater price stability without damage to economic growth. The failure to produce more than a small Treasury surplus at times of great prosperity was especially disturbing to those who believe that deficits and surpluses should at least approximately offset over the business cycle.

The postwar expansion of monetary demand was associated in part with growth in the stock of money and in part with a persistent upward trend in the turnover of money. Since 1950 alone turnover has risen by one-third. In 1957 turnover averaged 13 percent higher than in 1955. At the end of 1957 the sum of demand deposits and currency outside banks was unchanged from 2 years earlier. Yet, during those 2 years the Consumer Price Index and the wholesale price index each rose by approximately 6 percent.

These figures demonstrate that demand can expand to bid up prices without an increasing money supply. They do not tell us how far the velocity of money can rise and hence how much spending can expand with a stable money supply. The effectiveness of monetary controls in stopping inflation has been the subject of debate among economists. Some have emphasized the institutional framework of our economy which has permitted many important prices to be less responsive to changes in demand than formerly was true. But the fact that some prices are established with less reference to current market conditions than other prices, does not warrant the conclusion that limitation of the money supply is not a necessary condition for price stability. Not only in the United States, but in other countries as well, central bank action has reflected fairly general agreement that inflation cannot be stopped without appropriate monetary policies.

In this connection, one further observation concerning price stability seems appropriate. Price stability does not have to mean price rigidity. In our type of economy prices are the major allocators of resources and as new developments occur, individual prices may be expected to vary. Theoretically, a perfect price index would aggregate and average all price changes, but this net movement of prices at any given point in time might well produce a somewhat higher or lower index number than was produced in a particular base period. There is nothing inherently wrong in such movements; the real point about price stability seems to me one which stresses long-run rather than short-run stability.

Thus, I would be inclined to be a little more moderate than those who define inflation as any general rise in prices or deflation as the reverse. These definitions seem to imply that even very gentle waves

in prices are bad and should call for action. There have been times in our economic history when price deflation was desirable, for example, in the early 1930's. At the moment I believe some price deflation would help spur consumer buying.

Before discussing the current economic recession, a general comment concerning economic growth and full employment of human and natural resources seems pertinent. One lesson which economic history would seem to teach us is that total growth and productivity gains come in surges rather than as a smooth upward sweep. The economy seems to resemble a human being. It cannot operate perpetually at full capacity: it has to digest, to catch its breath, to rest from time to time. The real problem is to see that the breathcatching or resting phase does not get to be an uninterrupted habit.

Since the physical volume of goods and services produced depends upon the level of employment and productivity which in turn depends upon investment, technology and labor quality, it is not likely that aggregate output will grow at a steady pace. Even with unemployment at satisfactory (low) levels, growth will be affected by changes in the number of people who wish to work and by erratic success in finding better ways to produce. The presence of short plateaus or even occasional mild dips in the gross national product is not inconsistent with economic growth, particularly in a market economy where productive resources must constantly shift to accommodate the changing preferences of buyers. Economic policies designed to prevent any departure from persistent growth in the output statistics may easily create more damage than good.

Unemployment as well as aggregate output is affected by those forces which operate in a free economy. Small fluctuations in the number of people seeking work may be regarded as a part of the price that must be paid if freedom of choice is to be preserved and if resources are to be encouraged to seek their most productive uses. It is clear, however, that large amounts of unemployment cannot be allowed to persist if the goals of economic policy are to be achieved.

The rising unemployment of early 1958 reflects a scarcity of job opportunities not only for new members of the labor force but for workers released from production by the liquidation of business inventories, the decline of exports and military spending and the decline in business capital formation. In 1954 rising unemployment was produced chiefly by the substantial cutback in spending by Government which followed the conclusion of the Korean war. And in 1949, attempts by businessmen to liquidate excessive inventories necessitated substantial layoffs by producers. These are examples of the types of adjustment which create unevenness of growth.

Currently there is some evidence that many consumers have elected to accumulate liquid assets such as savings balances rather than maintain their spending. This suggests that more attractive products and price adjustments could elicit additional spending, which in turn could provide more employment opportunities.

Two specific means of cushioning the effects of the current recession and paving the way for a resumption of growth with stability seem to me desirable. First, the relaxation of monetary policy is designed to create a climate for expansion of credit by making funds more freely available at reduced cost. This has led to some general improvement in bank liquidity and to general lowering of interest rates. Monetary

policy action has been taken, it seems to me, with force and dispatch. It obviously cannot, all by itself, bring about full recovery; it can, however, lay the groundwork for a full recovery movement.

Second, to cushion and relieve the economic distress occasioned by the large-scale unemployment some extension of the unemployment compensation system would seem desirable. By increasing benefits and by lengthening the term over which benefits are payable, the people directly hurt by the current recession could be helped directly and consumer buying power could be prevented from falling sharply. Could this kind of program be accompanied by some modification of standards of eligibility for unemployment compensation, it would go far to cushion the adjustment taking place. Some State eligibility standards require elimination of unemployment compensation payments if the recipient locates work yielding an income in excess of a very small fraction of the benefit payment. The purpose, of course, is to eliminate the incentive to remain unemployed; I believe this purpose could be served adequately even though the minimum earned income level for eligibility were revised upward in substantial degree. This would have the effect of permitting more part time or lower pay work without jeopardizing the unemployment payments and hence would hold up income.

If the above changes could be coupled with a provision for the use of Federal funds to cover the additional cost, it would eliminate the destabilizing effect of higher payroll taxes at a time of reduced business activity. Finally a major virtue of such a program would be its automatic reduction as unemployment declined.

PART II. OBJECTIVES OF ECONOMIC POLICY

Comment under this heading is intended to cover questions 2, 6 (a), 11 (b), 15, and 16 of the Senate Finance Committee questionnaire.

I have no particular difference even as to emphasis with the consensus comment on objectives of economic policy. What I state here is mainly repetitive both in respect to the consensus comment and part of my comment under part I.

To me, it is of key importance to recognize that economic growth, employment, production and demand stability, and price stability are indivisible in the long run. The old unanswerable questions about which leg is more important to a walking man or which scissors blade does the cutting seem to be pertinent when applied to the long-run objectives of economic policy. In the short run, as the consensus comment points out, one objective or another may assume some priority. On a pragmatic basis there has not been any great difficulty in arriving at reasonable conclusions as to priorities under differing conditions. There are times, of course, when there can be honest differences of opinion as to the state of the economy and hence as to the priority of a particular objective, but by and large these would seem to be very temporary situations.

Much has been written in recent years about the incompatibility of the objectives of growth, stability in employment, production, and demand, and price stability. It seems to me that a far more persuasive case can be made for their interdependence. Without reasonably full use of resources, both human and material, we encounter economic waste and therefore something less than optimal growth.

Without reasonable price stability, we encounter uncertain business decisions, speculation, and questions as to the desirability of saving which lead to less than efficient use of resources and to swings in capital formation which certainly do not contribute to balanced growth. The fact that we had growth with price inflation during the past decade is discussed in my comments under part I. That history seems to me to prove no more than that we had both growth and inflation; not that the two are complementary; certainly not that this situation is desirable.

Also noted in part I is the point that a dynamic economy does not perpetually operate at full capacity. Public policy should be concerned with the length of time and the amount it is below full capacity, rather than with minor and transitory interruptions to full-scale operation. If consumer choice is permitted to point the general direction of economic expansion, then small amounts of temporary unemployment from time to time may be inescapable. These can be cushioned by various devices, notably the unemployment insurance program. If consumers shift their preferences from one good to another, we ordinarily should not interfere with the allocation of resources which will give consumers what they want. Our profit-motivated economy is admirably suited to solving such problems of resource allocation. The role of public policy in the economy is not so much to direct the allocation of resources (although it undeniably has effects on resource allocation) as to insure that cumulative economic disturbances such as serious inflation or serious unemployment do not lead to wasteful use of resources.

A final point on this section deserves restressing. Because the American economy is not a perfect economy and because economic policymakers are human, we do not attain all objectives of economic policy at all times. To me, this is no reason to abandon any of them. Some of the proponents of creeping inflation imply that since, in their view, inflation cannot be stopped, it should be accepted. I do not agree with the premise, nor do I believe that the record or reason supports it, and I certainly would question the conclusion. While we may experience creeping inflation at times, this is a far different thing from acceptance of it as regular and inevitable or as a necessary condition for growth.

We may not know precisely what would be the results of public acceptance of such a condition, or its acceptance as a matter of public policy. We can, however, reason that it would stimulate current spending and inhibit private saving. We can reason further that the savings gap would have to be made up, either by credit expansion or by some sort of directed economy device, or else capital investment would be retarded and the rate of economic growth slowed. If the savings gap were filled by credit expansion, inflation would be intensified; if it were handled by direction, the nature of the economy would change—in my opinion, for the worse. The effects of inflation on individuals who cannot keep up with it are serious enough; the effects of acceptance of inflation as a matter of public policy would be far more serious.

PART III. MONETARY POLICY, 1942-57

The discussion under this heading deals with question 3 of the Senate Finance Committee questionnaire.

The historical review detailed in the consensus comment is thorough and warrants little additional comment from me. Thus my remarks are confined to a brief note on 1 or 2 points.

Although it is impossible to say with certainty how economic developments since 1942 would have been affected had different monetary policies been pursued, the statistical evidence suggests that somewhat more restrictive monetary policies could have aided price stability without damage to employment or economic growth. Interest rates doubtless would have averaged higher under policies which occasioned a lesser rate of growth in credit.

But considerations of war finance, early in the period, dominated the formulation of monetary policy. The decision to finance the heavy Government expenditures in perhaps greater than desirable proportion by borrowing, imposed upon the market for securities the burden of absorbing the swollen volume of new Treasury issues. Without some increment to investable funds from commercial bank credit expansion, it is doubtful that Treasury finance could have been accomplished without much more serious problems.

After the war, monetary policy was operating in an economy being subjected to the powerful disturbances attending vast reductions in Government spending and rapid growth in the number of people wishing to work. In retrospect, it appears that the deflationary forces were overrated, as was the danger of allowing Government securities to fall in price.

Some evidence can be assembled to support the view that, subsequent to the "accord" in 1951 when Treasury securities were allowed to fall in price, monetary policies continued to overrate the significance of the deflationary elements which appeared from time to time. While the accumulation of unemployment in 1953 and 1954 clearly warranted some relaxation of monetary restraints, hindsight suggests that the inflationary problems of the past 3 years could have been lessened and the recovery in late 1954 could have proceeded with less commercial bank credit expansion than monetary policy allowed at the time. About these matters, however, there is no certainty.

That monetary policy emphasized restraint after 1954 is evidenced not only by the choice of adjectives popularly used in its description, but also by the facts that the Nation's money supply was virtually unchanged at the end of 1957 from 2 years earlier and interest rates generally rose to postdepression highs. Despite this, the boom in business investment followed by the development of excess capacity and the tendency of prices to edge higher indicates that perhaps policy erred more on the side of ease than was proper, even though much of the public criticism took the opposite position.

In 1957 prices continued to rise throughout the year and unemployment fell in every month before November except May and June. Beginning in November, unemployment began to accumulate, and by the spring of 1958 numerous measures were under consideration

for the treatment of the recession. A reduction of Federal Reserve bank discount rates in November constituted recognition by monetary policy that economic conditions had changed.

There was awareness on the part of the monetary authorities of the uncertain economic outlook throughout 1957. What is important to remember is that the uncertainty properly reflected concern over further inflation about as much as concern over possible deflation. Some opinion now holds, as the statistics have become available, that the turning point toward deflation came in August 1957. In my opinion, an equally good case can be made for late October as a turning point date. I believe the System saw the turn in the road about when it came and moved at once to take prompt and forthright action.

In summary, had monetary policy been less restricted by the necessity to facilitate Treasury finance in the war and by concern for the huge debt after the war, a greater measure of price stability probably could have been achieved. These considerations illustrate the importance of harmony in the use of monetary and fiscal policy and the other instruments of public policy.

PART IV. FISCAL AND DEBT MANAGEMENT POLICY

Discussion under this heading is intended to cover questions 5, 7, 8, 13, and 14 of the Senate Finance Committee questionnaire.

My remarks relate primarily to question 13, although I wish to comment briefly on certain points brought out by questions 5 and 7. In general, I agree with the consensus comment; my statements are intended to be supplementary only.

In my opinion, the point (in terms of unemployment, production, consumer demand) at which the Federal Government should move in major ways to counteract an economic downturn cannot be determined by any fixed figure, such as a percentage or an index number. The particular cause or causes of economic instability are more important in determining a course of countercyclical action by Government than are specific points of reference. As a matter of fact, we have built into our economic system a series of automatic stabilizers (a progressive tax system, unemployment compensation programs, farm price supports, etc.) which can and do operate to moderate economic distress occasioned by downward adjustments in activity. In up-swings, these either tend to become neutral in their effect or operate as anti-inflationary devices.

For example, an inventory adjustment or spotty unemployment resulting from changed consumer tastes should not require additional direct Government intervention. In the first instance, the adjustment presumably is desirable, in fact, is required by the economy. In a sense, it is required because preventive measures to inhibit speculative inventory buildup have been inadequate and the economy has to go through a brief convalescent period. Here the built-in stabilizers, particularly unemployment compensation, should cushion the effect of the adjustment on consumer income.

Similarly, it would be unwise to interfere with an adjustment stemming from changed consumer tastes or resistance to high prices, beyond the use of the built-in stabilizers. Desirable changes in production

follow such developments; these are constantly in process in a dynamic economy such as ours.

In other instances, when the causes seem more far-reaching—say, adjustment from a war to a peacetime economy, or one stemming from a deepseated maldistribution of income—Government intervention should come quickly and forcefully in order to avoid major cumulative output, employment, and price downswings. In such cases, however, intervention should be based on thorough analysis in the interest of avoiding massive intervention against minor disturbance, which could pose more problems for the future than it solved at the time.

With respect to question 5, I must agree for the time being with the statements forming part of the consensus comment on this question. While debt management policy theoretically offers great possibilities as a fairly flexible countercyclical device, as a practical matter it has not proved feasible to use debt management in this way to any appreciable degree.

The theoretical case for debt management as a flexible countercyclical measure is so impressive, however, that I would not like to see it ruled out by policy. Sale of long-term securities and retirement of short-term issues during inflation would tend to reduce liquidity and hence inhibit bank loan expansion; reverse action would occur during deflation. In addition, such a program would lead to absorption of some long-term funds in inflation and thereby restrain other demand which could be made effective mainly by utilizing these funds. During deflation the long-term market would be left relatively free of Government demand for funds, thus leaving room for other demand. Mere lengthening of the debt would tend to act as a stabilizing force. In inflationary periods, with rising credit demand and higher interest rates, the price of securities falls, thereby inhibiting switches into other investments. The longer maturities are affected more than the shorter ones, simply because their call or maturity dates extend well into the future.

Perhaps the market factors of today argue against effective use of debt management as a stabilizing tool. I hope this kind of use will continue to be studied, however, and that more effective techniques of use may be discovered as time goes on.

Government spending as a countercyclical device also has offered more theoretical than real possibilities in the postwar years. Spending programs take some time to become effective, even when prompt congressional action is taken. Given today's very large budgets dominated by defense programs, it has not proved feasible to make any sharp reductions in Government spending during inflation. Whether the reverse holds true has not been strongly tested during the past decade.

In the field of fiscal policy, tax policy apparently holds the greatest promise as a stabilizing implement. A progressive tax structure has a large measure of built-in stabilization qualities since income changes automatically change the amount of tax receipts. Going beyond this automatic factor, tax rate cuts or increases have pronounced effects on disposable income and on spending. These are not usually the products of quick action, however, and thus do not lend themselves well to short-run situations.

PART V. THE UNITED STATES MONETARY SYSTEM

Comments grouped under this main heading cover generally questions 9 and 10 (a) and (b) of the Senate Finance Committee questionnaire.

The central points covered by the consensus comment: Definition and description of the monetary system, standards for judging its adequacy, and relationships between monetary policy, fiscal policy, and debt management, are presented in a form with which I can concur completely. I agree that the primary question of working with the three instruments of economic policy is one of coordination rather than one of selection, and that it is highly important to have mutual awareness of problems in all three areas. I share the feeling that there has been reasonable coordination of policies over the past 7 years. Finally, I should note that I concur almost completely in the consensus comment as to the adequacy of the monetary system in responding to economic change in accommodating orderly economic growth on a national scale and in the allocation of bank credit to promote effective use of the Nation's resources.

My supplementary comments relate to two broad areas: The "financial intermediaries" (insurance companies, savings and loan associations, savings banks, pension funds, etc.), and the adequacy of the monetary system on a regional basis.

With respect to the financial intermediaries, I agree with two points noted in the consensus comment: that they do not expand the money supply by means of their extensions of credit, and that any action to bring them directly under monetary control should await the results of extensive study of their functioning. Two additional points, however, might be noted; these undoubtedly would be studied in connection with any extensive review of the financial intermediaries.

The first point has to do with the velocity of money. There seems to be little question that the operations of the financial intermediaries, through activation of relatively idle cash balances, can influence the rate of money turnover. While there does seem to be some natural limit to the turnover rate so that control over the supply of money is the key factor in the supply-velocity combination, the velocity factor can prove troublesome enough in the short run to blunt the cutting edge of a restrictive money policy. I recognize that velocity changes stem from other sources than the financial intermediaries operations and that most, if not all, of these other sources are not susceptible to greater public control. This, however, does not seem to me to be an adequate argument against bringing sources which may be susceptible to control under control, unless they are so minor as to make little difference.

The second point relates to the effects on the economy of the growing institutionalization of savings, which development is underlined by the growth of the financial intermediaries. I have no preconceived ideas on this point, but it would seem highly desirable to study it.

The balance of my comment under this discussion area relates to the adequacy of the monetary system from a regional point of view—specifically, in this case, from the point of view of the upper Midwest or the Ninth Federal Reserve District. This is a large geographic area, much of it sparsely populated, with great natural resources. It is heavily agricultural, but has substantial mining and lumbering activ-

ity. Its only major metropolitan area and industrial-commercial-financial complex is the Twin Cities of Minneapolis and St. Paul.

At times in the past, this region has had difficulty in obtaining as much capital and credit as it could employ usefully and desirably, a situation not particularly unusual in a new or relatively underdeveloped area. The net flow of funds tended to be adverse, a condition that was accentuated whenever farm prices weakened relatively or farm production fell substantially. Flows of capital and credit from outside seem to have been inhibited, partly, I suspect, because of imperfect knowledge of opportunity, partly because of imperfect understanding of risk. Also characteristic of a new or developing area, the region's own financial system, primarily a small-bank system, seems to have been overextended almost as a chronic condition, and at times was under severe strain as it sought to meet financial needs. The big banks of the Twin Cities and some of the larger institutions in other population centers served as the correspondents for the small banks. They also faced severe strains at times.

This state of overextension made the credit system quite vulnerable to economic misfortune, particularly farm recession. When such occurred, heavy waves of bank failure followed; these were proportionately far more severe than those which took place in more developed and better capitalized areas. Thus, despite the yeoman efforts of the region's own financial system, which really did an extraordinary job under trying circumstances, I believe it fair to say that, from the point of view of this region, the credit side of the monetary system was not always adequate in the past.

This situation no longer holds true, and today the monetary system can be regarded as adequate from the standpoint of this area as well as that of the Nation. Ties with other regions are stronger, the national credit structure has become more closely linked, and outside sources of funds can be tapped more successfully. The big change, however, has come in the growth of the area's own financial system, which is now much stronger and has resources of its own which are far more adequate to meet needs than they were in the past.

It should be noted that the present state of credit adequacy for this region came about mainly through developments inside the region and via private rather than Government endeavor. To be sure, Government programs which helped agriculture, Government spending for war and public works, and other Government programs contributed significantly to the general economic growth of the region. Also, changes in the banking laws helped strengthen the whole credit-granting structure. These all operated on a national scale, however, and there is no reason to believe that this area benefited appreciably more than others from such developments.

Government farm-credit agencies have made a real contribution to agricultural finance in the region, but, again, that contribution has been no greater (in fact, it seems to have been slightly less) than in other areas. As of January 1, 1948 and 1957, of total short-term farm credits held by commercial banks and production credit associations in the 6 States of Michigan, Wisconsin, Minnesota, North and South Dakota, and Montana combined, the proportion held by production credit associations represented only 14 and 15 percent, respectively, as against 16 and 18 percent, respectively, for the country, as a whole.

Three recent developments in making the regional credit system even more adequate are worthy of note, and, again, it is important to stress that these are local endeavors. South Dakota, Wisconsin, and Minnesota have chartered industrial development credit corporations. These are institutions, operating on a statewide basis, designed to aid in the financing of new and expanding industry. They are privately capitalized, and were actively sponsored by the State bankers associations.

It is with real pleasure and pride that I recite this record of accomplishment. If the next 25 years bring with them as much real growth in the regional economy and the regional financial system as did the past quarter century, the upper Midwest will have an enviable record, indeed.

FEDERAL RESERVE BANK OF KANSAS CITY,
Kansas City, Mo., April 3, 1958.

HON. HARRY F. BYRD,
*Chairman, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR SENATOR BYRD: I am glad to respond to your letter of February 17, 1958, requesting my thoughts and opinions about various matters affecting our economy. Inasmuch as you made a similar request of each of the other Federal Reserve banks, it appeared to us that a joint reply might be possible on our behalf with respect to a number of the matters to be covered, which would serve to eliminate a considerable repetition of views as well as to facilitate the completion of our replies within the time, substantially, that you requested them. A similar procedure was followed in replying to inquiries from Senator Douglas and Representative Patman in the hearings on monetary policy which were conducted under their chairmanship, respectively, in recent years. A joint reply of that kind has been prepared, and a copy of it is herewith sent you. The joint reply, together with the comments in this letter, constitute my reply to your inquiry.

These comments reflect a desire to give somewhat more attention to the dynamic interrelationships existing among the major goals of economic stabilization policy—price stability, maximum employment levels, and sustained economic growth. Viewed from the standpoint of their dynamic aspects, the mutual interdependence of these goals assumes a degree of importance which is deserving of particular emphasis.

A point of departure for considering dynamic aspects of economic policy goals is found in noting the importance of achieving steady growth of output in an economy displaying a positive growth potential. The existence of a continuously enlarging supply of resources requires an expansion in real output to prevent underutilization of resources, unless productivity is declining. To the extent that productivity rises, the expansion rate of real output necessary to circumvent the emergence of idle resources is increased. Since our economy displays ample evidence of a positive growth potential, the result of both efficiency gains and enlargement of resource supplies, the actual growth rate of real output clearly is a necessary concern in the formation of monetary and fiscal policies. Satisfactory employment levels would not be achieved if the actual growth rate of real output became and

remained significantly below the economy's growth potential. Thus, policies designed to achieve and maintain satisfactory employment levels inherently are directed toward the absence of serious interruptions to the forward progress of total real production.

It would be folly for public policy to attempt to promote a fixed annual increment to physical production. Once the economy has attained maximum levels of employment and output consistent with price stability, the extent to which further annual gains in real output can be accomplished, within the framework of stable prices, cannot be determined with any degree of accuracy. Our postwar experience, indicates that productivity gains vary markedly from year to year, and the yearly expansion in labor supplies is itself subject to variations, depending upon the growth and changing age composition of the population and alterations in the labor force participation rate. Observation of the growth of real output, nevertheless, provides important clues for the guidance of policy decisions. Thus, a retardation in the growth rate, when labor force participation rates and plant capacity rates of operation are high and rising, provides confirming evidence of exceptional strains on basic resources that are productive of inflationary pressures. Contrastingly, slow growth of real output, accompanied by indications of declines in labor force participation and plant capacity rates of operation, confirms a moderation of these fundamental tensions.

Achieving comparatively steady growth in output is necessary not only to the attainment of satisfactory current utilization rates of resources, but also to the establishment of conditions favorable to the maintenance of these utilization rates in future periods. The ability of the economy to realize its growth potentialities is greatly enhanced by the provision of reasonable assurance to businesses and consumers that marked variations in the expansion rate of business activity are to be counteracted by measures of public policy. Wide swings in aggregate output levels magnify the risk of business enterprise and place a damper on business investment. The anticipation of highly unstable income levels equally affects the willingness of individuals to incur debt obligations and acquire homes, autos, and other goods and services. The absence of major cumulative downward movements during the mild recessions of 1949 and 1954, and to date in the current recession, reflects, among other things, the confidence of business and consumers that economic growth can proceed with minimal interruption. The expectation of reasonable output stability has been a vital element in the stabilization of investment and consumption outlays. This expectation, in part, rests upon public recognition of the potential expansion in incomes and markets made possible by population growth and technical progress. But it is in no small measure related to the acceptance by Government of an increased responsibility to avoid cyclical output fluctuations.

No less important to the continual maintenance of steady economic growth is the avoidance of instability in prices. Throughout the postwar period, this problem has posed itself as one of controlling inflation. It is worth recalling, however, that secular price deflation, or wide cyclical fluctuations in prices around a constant average level, also would create serious obstacles to the sustainment of satisfactory production and employment rates.

One of the dangers of inflation is that price advances in a period of cyclical expansion may increase the vulnerability of the economy to a succeeding contraction. Distortions in price-cost relationships, a redistribution of real income away from persons whose money incomes are inflexible, and speculative investment in inventories or capital equipment are among the kinds of structural maladjustments which may accompany price increases. How important inflation-created maladjustments have been in generating observed downturns in employment and production during the postwar period is not readily determined. While there is little evidence suggesting that the contractions of 1949, 1954, or the present recession were due solely or mainly to maladjustments traceable to price changes, such factors were among the casual forces of these interruptions to economic growth.

A second inflationary threat to economic growth and stability lies in the psychological attitudes and expectations engendered in the minds of the public. To the extent that continuing price advances become more widely anticipated, efforts to escape the effects of inflation may decrease seriously the resistance of the economy to future inflationary pressures. Evidences such as the adoption and spread of wage contracts tied to the cost-of-living index, the declining reluctance of businesses and consumers to incur debt obligations, and the general increase in price-earnings ratios on industrial stocks during the past 10 years point to significant changes in public attitudes regarding the future course of prices. This may be the principal threat created by inflation in the postwar period. Policies to combat inflation in this kind of economic environment must be designed not only with a view to avoiding the short-run disturbances associated with price maladjustments, but also with a view to the longer run implications of continuing reductions in the purchasing power of money. The success of anti-inflationary policies cannot be measured by price indexes alone. The effect of such policies on the public's attitudes toward inflation is also important.

Reasonable price stability and the absence of wide fluctuations in the levels of output and employment clearly are conditions necessary for a climate conducive to economic growth. But the limits of tolerance within which prices, employment, and output may vary without undermining this climate depend heavily upon the reactions of the community and upon the kinds of institutions present in the economy. Thus, it cannot be assumed that the experience of other countries, or even our own historical experience, necessarily provides reliable answers to this question.

It seems probable that the limits of tolerance in our economy are quite narrow. For a variety of reasons, the sensitivity of the economy to inflation—the extent to which price rises induce expectations of further advances (and motivate reactions which tend to justify the expectations)—appears to be high. Important decision-making economic units, such as corporate management and labor organizations, are large and knowledgeable. Prospects for future price advances cannot help but influence industrial pricing practices, investment decisions, and wage negotiations. Widespread access to credit facilities provides a financial basis for both businesses and consumers to accelerate purchases. The high and rising level of general economic

intelligence familiarizes individuals with the effect of inflation on their financial position and suggests means of escaping its effects; publicity given to inflation in the postwar period has added to the community's awareness of the problem.

As has been suggested earlier, the postwar period has witnessed the development of public expectations that periods of depressed output and employment will be a less prominent feature of our business experience than they were in earlier years. Recognizing that public policy has placed narrower limits of tolerance on what are regarded as satisfactory employment and output levels, public confidence has been sustained in periods of declining business activity. In this sense, the sensitivity of the public to downward adjustments in business activity—the extent to which pessimistic expectations are engendered which contribute to the downward movement—has been reduced and the sensitivity to inflation increased. Nevertheless, it remains true that an economy with investment tied to the profit motive, an economy with a heavy volume of future income committed to debt retirement, an economy with considerable downward inflexibilities in its cost structure, an economy in which the commitment of resources to the capital goods industries is geared to continuing economic expansion cannot tolerate sharp and protracted declines in employment, output, and prices without risking serious disruption to the economic growth process. It is just as important to preserve public confidence in the ability of the economy to resist downward adjustments in business activity as it is to evidence a firm determination to fight inflation.

Another sense in which economic growth falls within the focus of public policy is revealed in the increased attention given in recent years to the concept of sustainable economic growth. There have been at least two major kinds of problems distinguished in discussions of this concept, problems which pose distinct questions from the standpoint of public policy.

The first of these deals with maladjustments created in the process of moving rapidly to full capacity production from a state of resource underutilization. Frequently, periods of recession in economic activity are followed by extraordinary surges in production, investment, and consumer spending, as business activity moves to new peaks well above those achieved in any preceding boom period. The rate of expansion often substantially exceeds the long-run growth potential of the economy, as rapidly rising levels of output are permitted by the existence of unused resources in the initial phases of recovery. Such headlong expansion cannot proceed indefinitely; the expansion rate of real output necessarily must slow down as the economy moves into the range of full capacity production.

If the expansion rate during the upswing is too high, an encounter with full capacity ceilings may retard the growth process so abruptly as to make a continuance of growth quite tenuous. Certain kinds of economic activity may become geared to the excessively high growth rate of output, and a marked reduction in the growth rate may produce serious setbacks in these industries. The "shock effect" of these setbacks may be sufficient to turn boom into recession.

Economic growth of this kind is unsustainable; it generates an industrial distribution of resources which cannot be maintained indefinitely. The policy implications of this kind of unsustainable

growth are generally clear, albeit imprecise: the exercise of restrictive policies must begin in the early stages of industrial expansion to foster orderly, balanced growth in business activity.

A second form of unsustainable economic growth is associated with the difficulty of avoiding cyclical fluctuations in output when labor is the relatively scarce productive factor limiting the potential growth rate of physical production. This situation often is thought to be characteristic of industrialized Western economies, as opposed to the so-called underdeveloped countries in which a shortage of capital instruments to equip the labor force frequently poses the effective limitation to economic growth. That a relative scarcity of labor resources could lead to an interruption of the growth process, to recessionary tendencies, and to general unemployment may seem paradoxical, but the problem is no less serious because of its unusual character.

The source of the difficulty in sustaining economic growth in this case may be stated in 1 of 2 ways. One formulation is that the volume of investment needed to keep the economy operating at maximum employment levels is too high, because the resulting additions to plant capacity exceed the growth in complementary human resources and hence in total output. Thus, an increased share of output flowing to consumers or to Government and a smaller share in the form of investment would permit a continuance of maximum employment levels with smaller additions to plant capacity. A second formulation is that the potential growth rate of output is too low, given the proportion of output taking the form of net capital formation. This formulation suggests that acceleration of the potential growth rate would prevent the emergence of unused plant capacity. Innovations which increase labor productivity, especially innovations which are highly labor saving, for example, would help in this respect by removing or scaling down the obstacle to growth—the relative scarcity of labor.

This kind of unsustainable growth points to important interrelationships between cyclical disturbances and growth potentialities. Therefore, economic stabilization policies and policies aimed at altering the economy's growth potential are not entirely separable.

When the effective limitation to economic growth rates is found in a relative scarcity of labor supplies, central banking actions can do comparatively little to elevate the potential growth rate. Stimulation of particular kinds of investment which would increase the potential growth rate cannot be accomplished readily through credit policy. In these conditions, the contribution of central banking to economic growth is limited to the maintenance of an atmosphere in which the growth potential can be realized.

Maintenance of an atmosphere favorable to economic growth is also a responsibility of other kinds of governmental policies. Providing a climate in which private initiative and competition can function effectively are major prerequisites to a high economic growth rate, but the contribution of Government to economic progress does not end there. In a negative sense, concern with the effects of governmental policies on economic growth potentialities is inevitable, for

virtually every aspect of governmental action has some influence, for good or for evil, on our potential growth rate. The structure of taxes, for example, has implications for initiative and the supply of risk capital which bear importantly on growth possibilities. Policies directed toward the conservation of resources, fostering of the educational system, and Government research programs exemplify kinds of action directed more positively to the goal of a higher rate of economic progress. In general, policies such as these have not been concerned with the interrelationship of economic growth potentialities and economic stability. Rather, their major purpose has been to increase per capita income and hence the standard of living. Conscious direction and perhaps extension of such programs might be appropriate in the event that economic growth proves unsustainable by virtue of an inadequate potential growth rate.

This brief résumé of the dynamic interrelationships among the major goals of economic stabilization policy by its nature ignores a broad area of social values whose achievement falls within the focus of economic stabilization policies. Considerations of equity, as these are related to sharing the fruits of economic progress, for example, are involved in the choice among kinds of stabilization policies. The viability of our socioeconomic institutions, as it affects their continuing survival, ultimately may determine the effective limits of tolerance on fluctuations in employment, output, and prices. Such broader considerations obviously must play an important role in the design of programs to achieve economic growth and stability.

Very truly yours,

H. G. LEEDY, *President.*

FEDERAL RESERVE BANK OF DALLAS,
April 10, 1958.

MR. SAMUEL D. McILWAIN;
*Special Counsel, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR MR. McILWAIN: Enclosed are three copies of Mr. Irons' supplement to the joint reply of the presidents of the Federal Reserve banks in response to the questionnaire of the Senate Finance Committee.

In line with our telephone conversations today, we have slightly changed a few sentences in some of the footnotes so that they could stand separately as supplementary comments, but there are no changes in substance. The page references at the beginning of each supplementary comment refer to the pages in the joint reply as submitted to you, for example, by Mr. Hayes and certain other of the presidents; they do not refer to the pages in our original reply, in which the pages were renumbered to allow for insertion of our footnotes.

As I told you on the telephone, we shall be glad to cooperate with you in any way possible in your preparation of the material for publication.

Yours sincerely,

CHARLES E. WALKER, *Vice President.*

SUPPLEMENTARY VIEWS AND COMMENTS OF WATROUS H. IRONS,
PRESIDENT, FEDERAL RESERVE BANK OF DALLAS, TO THE JOINT
REPLY OF THE FEDERAL RESERVE BANK PRESIDENTS IN RESPONSE
TO THE QUESTIONNAIRE OF THE SENATE FINANCE COMMITTEE

SUPPLEMENT NO. 1—COMMENTS ON THE PROBLEM OF DEFINING
INFLATION AND DEFLATION

(Pertaining to pp. 1-5 of the joint reply)

The question as to the definition of inflation and deflation, while comparatively simple on its face, involves numerous conceptual difficulties, some of which are pointed up in the joint answer covered in pages 1 to 5. This supplementary statement, which reflects my views, may be of interest.

In my opinion, the terms "inflation" and "deflation," in their broadest sense, mean a general reduction or increase in the purchasing power or value of money and, consequently, may be defined as an increase or decrease in the general price level. This sort of definition which, in my judgment, represents a useful—though not infallible—concept is immediately subject to certain qualifications. There is first the question "What general price level?" and second there is the problem of "the time lag and short-run rigidity of prices." Other qualifying problems also might be mentioned.

Although inflation and deflation may be defined in terms of price changes, or tendencies toward price changes, the underlying causes of inflationary or deflationary tendencies must be considered in terms of the many economic forces—actually imbalances—which tend to produce price changes. For example, inflationary (or deflationary) pressures may be generated by monetary forces; by fiscal forces and Government spending; by aggregate demand excessive (or deficient) relative to available supply; by rising cost pressures in relation to productivity gains; by developments in the private sector of the economy, such as a capital goods boom; and by other forces. One or more of these or other forces likely will be the generating force which leads to inflationary (or deflationary) pressures and ultimately to rising (or declining) prices.

The various price indexes that are commonly used to measure broad price movements will not always move together. Moreover, a time-lag in the movement of different price indexes is not uncommon. Consequently, an upturn in all major price indexes is not necessary for the identification of inflation, nor is a downturn in all major price indexes required for the identification of deflation. Even during inflationary or deflationary movements, all price movements will not be uniform for all market items; moreover, all price changes will not necessarily be in the same direction. In addition, major price sectors (e. g., agricultural prices) may run counter to other major price sectors (e. g., industrial prices), under which conditions it becomes difficult to establish with assurance the existence of inflation (or deflation).

It is important to recognize that inflation and deflation are concepts involving persistent pressures which affect, with some possible time-lag, prices over a broad range. This point of emphasis is significant because the prices of individual goods and services, reflecting as they do the myriad conditions of changing supply and demand, are in a more or less continuous state of flux. At any point in time, some

prices are rising, others are falling, while still others are holding steady. Under such circumstances, modest short-term fluctuations in what might be termed "average prices" are to be expected, and these fluctuations do not necessarily represent either deflation or inflation. For example, a sudden freeze of the citrus and winter vegetable crops in Florida and the Southwest, resulting in an increase in food prices and in the cost of living, may not be serious as an inflationary problem. However, aside from these short-run fluctuations there exist from time to time for one reason or another unmistakable pressures which produce, or tend to produce, persistent upward or downward movements in prices over a broad range of market items. Depending upon the direction of these broad price movements, they may be characterized as inflationary or deflationary movements.

Inflationary or deflationary pressures may be present for some time before the effect of such pressures upon prices is discernible. It is true that inflation is experienced during the upward leg of the business cycle and deflation is characteristic of the contractive phase of the cycle and each is accompanied by the employment, production, income, and price forces that are characteristic of those phases of the cycle. However, due to such factors as the stickiness of price movements, the maintenance for an indeterminate period of time of final demand on the part of the consumer, the mere sluggishness of adjustments, and possibly for other reasons, actual price movements may lag the appearance of inflationary or deflationary pressures. This is not to assert, however, that such inflationary or deflationary pressures do not exert tendencies toward (and will not ultimately achieve) higher or lower prices over a broad general price area. In the moderate recession of 1953-54, and again during the current recession to date, final demand on the part of the consumers of goods and services was maintained at a much higher level, relatively speaking, than demand at the manufacturing or production level; consequently, it was, and has been, possible to effect a much more orderly inventory adjustment without appreciable price cutting than would have been the case if final demand had been less strong. This is not to say, however, that such conditions would continue to be the case if the adjustments were to proceed beyond the period of maintenance of final demand at a high level.

But one should not bind himself unalterably to the rigidity of price increase or decrease as the defining concept of inflation or deflation. At least theoretically, consideration should be given to relative rates of productivity over time and their relation to price movements. With respect to this problem, it is possible that inflationary pressures might prevail during a period of overall price stability provided productivity were improving and some part of the productivity gains were not being passed on to the final consumer in price reductions. Likewise, it is possible that a period of gradually declining prices might not be regarded properly as deflationary, if such declining prices were the consequence of increased productivity being shared by the final consumer in the form of lower prices.

Finally, it may be appropriate to associate inflationary and deflationary tendencies with situations which, for one reason or another, are characterized by over—or under—utilization of resources. Inflationary conditions generally prevail when there is a tendency toward the overutilization of economic resources and, sooner or later, are

reflected in general price increases; on the other hand, deflationary conditions generally prevail when there is a tendency toward an underutilization of resources and, sooner or later, are reflected in general price decreases. Moreover, it should be emphasized that, as a general rule, the seeds of deflation are sown in periods of inflation and the overutilization of resources. Therefore, the real point of attack upon deflation is during the preceding period of inflation; if inflation can be limited or prevented, the problems of deflation will not be very consequential.

SUPPLEMENT NO. 2—SOME VIEWS ON THE SIGNIFICANCE OF PRICE RIGIDITIES

(Pertaining to pp. 8-13 of the joint reply)

To the extent that price rigidities and inflexibilities, as outlined in the joint reply, prevent price adjustments during periods of economic contraction, serious problems with respect to the maintenance of the stability of the value of the dollar may arise. In my comment in supplement No. 1, I have associated deflation with a tendency—or actuality—toward declining general prices. It is admitted, however, that during periods of moderate or short-term economic contraction, when final demand is relatively well maintained, the downward price movement may be slight or even negligible. It is significant under such circumstances that if the preceding period were one of price inflation, e. g., 1955 to August 1957 versus August 1957 to date, the price increase of the preceding period becomes consolidated in the price structure with consequent long-run shrinkage in the value of the dollar.

If it is true that general downward price adjustments with all of their consequences are unacceptable under the Employment Act of 1946, then it should also be true that general price increases with all of their consequences should be regarded as equally unacceptable under that legislative doctrine. We simply cannot achieve stability in the value of the dollar over the long run if we are willing to permit and tolerate inflationary price increases but are unwilling to tolerate deflationary price decreases. This statement is not to be regarded as an argument in support of deflationary price decreases, but it does represent an appropriate emphasis upon the compelling importance of restraining and preventing inflationary developments and general price increases during the expansive phase of the business cycle. It also reemphasizes that the point of attack in the quest for economic and price stability first must be in the period of threatening or actual inflation.

SUPPLEMENT NO. 3—SOME FACTORS IN THE DECLINE OF THE VALUE OF THE DOLLAR, 1956-57

(Pertaining to pp. 26-32 of the joint reply)

Supplementing the discussion in the joint reply, and with specific reference to those factors which were most significant in their contribution to the decline in the value of the dollar as reflected by the Consumer Price Index from mid-1956 to mid-1957, I think it may be concluded that the most important causes or factors were a continued

increase in wage rates, an absence of any appreciable increase in productivity, maintenance of a very high level of final demand by consumers, upward price pressures in the areas of services, and relatively low consumer price resistance.

In 1955, as the boom gained strength and economic expansion accelerated, rising total demand was met by increased productivity and increased production. Gradually, however, as we moved into 1956 and as total demand continued to rise, the Nation's productive resources, including plant, materials, and labor, came under increased strain. Actually our labor force, our sources of raw materials, and the physical machinery of production approached full utilization.

The continuation of unusually strong final demand by consumers through 1956 and into 1957, against a background of virtually full utilization of economic resources, produced the results usually associated with a strained demand-supply relationship, namely, price increases. Price gains were most notable in areas of strongest competition for goods and services and least notable in the case of those commodities for which the demand-supply relationship did not run parallel to that of the economy as a whole. As the labor force approached a stage of full employment, competing demands for skilled and unskilled workers served to bid up wage rates and in many industries the increases surpassed gains in productivity.

Rising prices and wages were reflected in increased costs of business operations and, under circumstances of very strong final demand, businesses tended to pass on their added costs in the form of higher prices. Increases in the Consumer Price Index reflect at least in part this transmission of higher costs of business operations to the ultimate consumer. Also to the extent that escalator clauses and productivity clauses in wage contracts were used, they served as an instrument to pass the higher cost back to the business community which in turn attempted to pass them on to the consumer and give further impetus to the price movement.

The economic environment which provided the original impetus to price advances also supplied the conditions which were favorable for the transmission of the increased operating costs; namely, the existence of very heavy final demand, low resistance to price increases, and a growing belief in the inevitability of continuing inflation, at least in some degree.

Both the "pull" of demand on prices and the "push" of costs on prices prevailed and were, in fact, products of the same economic phenomenon—a final demand which in the aggregate was excessive relative to the available supply of goods and services.

SUPPLEMENT NO. 4.—SUPPLEMENTAL VIEWS ON THE GROWTH OF PRIVATE DEBT AS A THREAT TO STABILITY

(Pertaining to pp. 32-36 of the joint reply)

The question as to whether the growth of private debt in recent years may have become a threat to the stability and vitality of the American economy is a very difficult one to answer because the amount of such debt and its carrying burden must be considered in relation to the means of payment of the debt and its carrying cost.

In my judgment, it would be very dangerous to minimize the significance of the statement made in the joint reply that "no debt structure is likely to be impervious to major reductions of income." As a general rule, debt only becomes unwieldy and an unbearable burden when it becomes unbalanced in relation to the income of the debtor available for its servicing and repayment. Moreover, it is the income which shrinks with unfavorable economic conditions, not the debt.

Statistically it may appear that, due to rising incomes and growing liquid assets, the burden of debt upon individual debtors is lessened, although the principal amount of such indebtedness may have increased. However, the soundness of the debt-income relationship is just as dependent upon the maintenance of the level of income and the means of debt payment as it is upon the debt side of the equation.

While it is true that during periods of debt expansion incomes tend to rise, it is not true that during periods of declining income debts necessarily tend to shrink proportionately. A debt structure that might be wholly manageable in relation to a given amount of income might become quite unmanageable if the income level were to shrink, say, 10 percent. In my opinion, we should not overemphasize the debt-carrying ability of the public, under adverse conditions, merely because of such factors as a lower average interest cost on the debt, changes in the average maturity of the debt, a lengthening of the term structure of consumer credit, a shift in relative indebtedness toward higher income groups, and indebtedness relationships to liquid assets. It is a fact that repayments on indebtedness are currently consuming a larger proportion of disposable income than was the case, say, 10 years ago. A shrinkage in income could magnify the debt burden appreciably and, consequently, the much larger outstanding volume of indebtedness, even when measured in terms of much larger disposable income at the moment, should not be regarded complacently.

SUPPLEMENT NO. 5—ADDITIONAL COMMENTS ON THE CONSEQUENCES OF CREEPING INFLATION

(Pertaining to pp. 45-46 of the joint reply)

I should like to add my support to, and agreement with, the remarks in the joint reply relative to the question of "creeping inflation."

The long-run consequences of a policy of persistent, gradual, creeping inflation can hardly fail to create mechanisms whereby the various affected sectors of the economy attempt to protect themselves against a steadily depreciating currency. Once this process begins to grow, there is no reason to believe that inflation would thereupon remain gradual. Creeping inflation might become running inflation and ultimately galloping inflation. It appears evident that a responsible government cannot advocate as a measure of continuing public policy a course of action which, aside from being self-defeating in the long run, capitalizes on the inability of various groups within society to protect themselves in the short run.

One additional factor creating skepticism about the effectiveness of persistent, gradual, creeping inflation as a guide to public policy arises from considerations of international monetary movements. Under conditions favorable to an effective international monetary mecha-

nism, it would be doubtful whether the United States, even with its very large supply of gold, could continuously follow an inflationary policy relative to the rest of the world without setting in motion forces which ultimately would bring the process to a halt.

SUPPLEMENT NO. 6—DISCUSSION OF APPROPRIATE PUBLIC POLICIES TO COMBAT INFLATION AND DEFLATION

(Pertaining to p. 37-48 of the joint reply)

At the risk of repeating some of the material in the joint reply, it seems appropriate to supplement the discussion by presenting my views as to the implementation of the three objectives of economic policy; namely, price stability, business stability, and a satisfactory rate of economic growth. The discussion that follows can be considered as an explicit answer to question 2 on the committee's list, namely: "Explain how you believe the economy of the United States can best avoid either inflation or deflation. If you think present laws should be changed or new laws required, then make specific suggestions."

The Employment Act of 1946 provides the basic framework for economic policy actions by directing the Federal Government "to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining, *in a manner calculated to foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities*, including self-employment, for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power." I have italicized two clauses which, in my opinion, are particularly important in considering the type of public policies that should be adopted in promoting the ends of the act. These provisions indicate clearly that, insofar as possible, Congress desired to promote stable economic growth through measures compatible with free competitive enterprise and the creation of useful employment opportunities.

In view of these considerations, there seems little doubt that sound monetary and fiscal policies must play a very important part in achieving the desired objectives. These measures operate indirectly but nevertheless powerfully affect the flow of spending relative to the flow of goods and services. In 1950, a highly regarded subcommittee of the Joint Committee on the Economic Report stated unanimously: "We recommend not only that appropriate, vigorous, and coordinated monetary, credit, and fiscal policies be employed to promote the purposes of the Employment Act, but also that such policies constitute the Government's primary and principal method of promoting those purposes."

The nature of monetary and fiscal policies, and their coordinated use in a flexible manner as countercyclical instruments, are discussed in the joint reply. It is highly important, however, that certain other aspects of reliance on these instruments be understood. In the first place—and of primary importance—the limitations of these policies should be clearly recognized. While such policies are indispensable and should occupy a leading position in Government efforts to combat inflationary and deflationary movements, it is dangerous to assume

that even their flexible and timely use can compensate for maladjustments stemming from a variety of nonfinancial causes. Certain of these causes arise from Government action; others originate in the private sector of the economy. As is pointed out in the joint reply, a tendency for wage rates to rise faster than productivity can result only in inflation or unemployment; it is therefore essential that such increases be held within productivity limits. Indeed, there is much to be said for a gradually declining "real" price level for consumer goods and services, as productivity rises, so that at least part of the fruits of greater efficiency could be passed on to consumers rather than absorbed wholly by the factors of production. Similarly, developments in international trade, finance, and politics inevitably affect the pace of economic activity in the United States. At times, such events (e. g., the outbreak of fighting in Korea in 1950) exert an almost overpowering influence that may be temporarily beyond the practicable influence of monetary and fiscal policies. In short, sound monetary and fiscal policies are an essential ingredient in governmental efforts to promote stable economic growth; they can, further, provide a substantial positive contribution to the attainment of such growth; but they cannot be expected to compensate for internal structural imbalances in the economy and external events that sometimes exert a profound effect on aggregate spending and production.

Secondly, we cannot and should not expect future growth to be a continuous, uninterrupted, straight-line progression to higher levels of output, employment, and income. Rather, given a satisfactory long-term growth trend, we should expect and hope to follow a course roughly along the path of the growth line, sometimes rising above the trend and sometimes falling below it. Efforts to remove completely this moderate instability around the long-run trend may lead to the assumption of greater responsibility by the Government for directing economic affairs, a narrowing of the area of economic freedom, and other actions which encroach upon the basic tenets of a competitive, free enterprise economy. One of the prices of economic freedom is a moderate degree of fluctuation in economic activity. There is, however, ample evidence to indicate that the upper and lower limits of these fluctuations may be kept in reasonable bounds by flexible and timely administration of monetary and fiscal policies. Moreover, use of these instruments involves least interference with free market processes, as contrasted with direct controls which, by their nature, must be arbitrarily selective in impact. This approach is consistent with the provision of the Employment Act relating to free competitive enterprise.

Thirdly, in attempting to promote the ends of economic policy, we must accept reasonable definitions of price stability and maximum employment. Price stability should not imply rigidity of prices, either in the aggregate or with respect to individual prices. This does not mean that we must accept some degree of inflation if the other objectives are to be realized; it does mean that we must strive for general price stability over the whole period of the business cycle, as opposed to a fixed, rigid price level on a week-to-week or month-to-month basis. In like manner, the objective of maximum employment must be viewed on a longer run basis. In this respect, it is suggested that, for all practical purposes, full employment has been achieved

during the 12 years since the passage of the Employment Act. Admittedly, however, unemployment has temporarily increased during periods of economic adjustment.

Finally, inasmuch as postwar experience has demonstrated the increasing resistance of prices and costs to downward adjustment, the major effort with respect to Government economic policy would seem to be in avoiding the extremes of speculation and unsustainable expansion in business that inevitably lead to adjustment and recession. If we are to avoid long-run inflation resulting from relatively short spurts of price rises, followed by periods of price stability, every effort must be made to keep expansive tendencies within bounds during the rising phase of the business cycle. This view is supported by the judgment that certain policy techniques—especially monetary policy—may be more effective in restraining demand, as opposed to stimulating it. While I do not share the view that monetary policy is ineffective during recession—it seems obvious that economic recovery is fostered by a favorable monetary and credit atmosphere—it is clear that access to money is a prime requisite of expanding activity, although such access may not stimulate spending during a pronounced slump. Thus the greater effectiveness of monetary policy in combating inflation as opposed to deflation should be fully capitalized upon in our efforts to promote stable economic growth.

The legislative framework for effective monetary and fiscal actions appears adequate. With respect to fiscal policy, the problem is not so much one of existing legislation as that of timing and scale of actions and determination on the part of Congress and the executive branch to maintain a balanced or surplus budget over the period of the business cycle. In the nonfinancial sector, study should be devoted to the important areas, among others, of Government agricultural and housing policy, labor-management relations, and international trade.

SUPPLEMENT NO. 7—COMMENTS ON THE USE OF FISCAL POLICIES IN A PERIOD OF RECESSION

(Pertaining to pp. 68-70 of the joint reply)

The following remarks supplement the joint reply and summarize my views with respect to some of the aspects of question 13, namely: "Considering the financial condition of the United States, at what point, if any, in terms of unemployment, production, and consumer demand, should the Federal Government move in major ways, such as a tax cut and/or large increases in public works, to counteract a downturn in the economy?"

The question of appropriate Federal governmental intervention to counteract a decline in economic activity is of significant importance. In the past quarter century, the concept of compensatory fiscal action has been extensively examined and was an important factor leading to the passage of the Employment Act of 1946.

It is true that through appropriate fiscal actions the Federal Government can contribute to economic stabilization. It is also true that the desirable way or ways by which these actions should be implemented is a subject on which a unanimous opinion has not as yet been formed, nor has general agreement been reached on the precise role

to be played by countercyclical fiscal policies. Such questions as the timing of action, the problem of dealing with relatively moderate as opposed to relatively severe cyclical movements, and the respective weights to be attached to tax policy versus expenditure policy present important difficulties.

Recognizing that our perspectives and understanding will improve as experience on these subjects accumulates, I nevertheless suggest that major changes in the Government's countercyclical fiscal position should probably be reserved for serious changes in the state of the economy as a whole. The difficulty of diagnosing the severity of a recessionary trend in its incipient stage warrants a cautious approach to fiscal actions. In the meantime, the effects of the built-in stabilizers will come into action promptly and monetary policy may be expected to be adjusted quickly to the changed circumstances. For example, it would be unfortunate for the Government to embark upon a program of increasing expenditures substantially to deal with a declining economic trend only to find the economy rapidly turning upward well in advance of the actual fiscal stimuli. While there are grounds for believing that we may avoid a cumulative downturn in the economy through the automatic operation of the built-in stabilizers, coupled with appropriate monetary and fiscal action, it is by no means clear that the stimulus afforded by major fiscal-policy moves will be appropriate to deal with moderate fluctuations in the level of economic activity.

So far as stabilization policy is concerned, the essential issue revolves around the resolution of the conflict between near-term and long-term objectives. Thus, if Government fiscal actions attempt to offset or prevent short-run and temporary adjustments in the economy, this likely will contribute to secular inflation and, consequently, a reduced rate of growth in total production and real income. This problem is particularly relevant, since the disposition to incur deficits to meet a recessionary movement appears to be much stronger than the disposition to achieve surpluses during periods of full employment and inflationary pressures. Yet no government properly can afford to permit excessive unemployment and the accompanying waste of productive resources without resort to some compensating actions. With respect to basic issues of this sort, a continuing and intensive examination of our experience seems to be in order. Given the imperfect state of our forecasting techniques and our insufficient knowledge of the precise impact of alternative courses of action, the chances are very slender that any simple formula can replace sound judgment with respect to the establishment of appropriate fiscal-policy actions.

To be more specific, during the early stages of a recessionary trend such as those we have experienced during the postwar period, overt and direct fiscal action should be at a minimum, although the automatic stabilizers will be operating. Thereafter, if the economic situation continues to deteriorate, some moderate intensification of existing Government programs might be in order, especially with respect to those programs in which a speedup will affect output and employment within a relatively short period of time. If economic activity continues to decline and shows signs of serious deterioration, consideration could then be given to a combination of tax cuts and/or expenditure increases. Both the amounts and the types involved

necessarily would have to be based upon the existing circumstances and outlook. Moreover, the market mechanism should be given the greatest scope for correcting maladjustments and restoring a balanced position.

SUPPLEMENT NO. 8—SUPPLEMENTAL COMMENTS ON THE CAUSES OF
AND REMEDIES FOR THE CURRENT RECESSION

(Pertaining to pp. 70-72 of the joint reply)

It is appropriate to supplement the joint reply by commenting upon question No. 17, namely: "List and briefly discuss what you consider the causes of the present recession, and what should be done to terminate it."

The underlying causes of the recession of 1957-58 are to be found in the excesses and imbalances that developed during the boom of the preceding 2½ years. These developments included a growing inefficiency in the utilization of labor and resources, inaccurate estimates of sales potential in certain major industries, and an accompanying overexpansion of business investment in plant and equipment and inventory. In addition, the high degree of liquidity, which was built up in 1954 and carried over into 1955, contributed to the rapid, expansive developments of the period.

The impact of these underlying forces was manifested in several important ways during the latter part of 1957. Confronted with topheavy inventories relative to sales, a number of industries—particularly in manufacturing—shifted rapidly from inventory accumulation to liquidation. Growing capacity, as related to current sales, caused many producers to reduce expenditures on new plant and equipment, and also stimulated inventory liquidation. The impact of the underlying forces was magnified by a decrease in Federal spending for goods and services, particularly military items, and a sharp cutback in new orders for defense. Finally, a psychology of caution permeated most of the business world and, perhaps, led to greater reductions in business spending than might otherwise have occurred. Consumer spending was, in the aggregate, well maintained during most of the period, even though sales of durable items and housing expenditures were considerably below the advanced levels that had been reached in 1955 and 1956.

The type and extent of action that should be taken to terminate the recession depend largely on one's views as to its probable magnitude and duration. It is important to recognize that some of the excesses and imbalances will take some time to correct, and overemphasis on Government fiscal actions now might serve to hamper such correction. In addition, there is the possibility that such actions would be liable to exert stimulative effects at a time when they were no longer appropriate. As private expenditures turned upward, large Government deficits would magnify expansive pressures and contribute further to erosion of the purchasing power of the dollar.

Monetary policy, since the time of its reversal in the autumn of 1957, has been designed to cushion the adjustments brought on by the underlying forces and, further, to provide a monetary and credit atmosphere conducive to recovery, once the adjustments have been completed. The reduction in discount rates in November 1957 was

followed in early 1958 by additional decreases in rates and reductions in member-bank reserve requirements. In addition, Federal Reserve open-market operations have added significantly to the volume of reserves available to the banking system. In response to these actions, interest rates on both short- and longer term debt instruments have declined sharply, bond prices have risen, and the reserve position of the banking system has shifted from one of considerable tightness to one of marked ease. Confronted with declining loan demand, banks have put additional reserves to work by purchasing Government and other securities in large amounts. Monetary growth has been resumed at a rapid rate.

The degree of monetary ease that has been achieved appears fully sufficient, and the flexibility of monetary policy assures that it can be quickly adjusted to the developing business situation. On the other hand, the lack of flexibility of fiscal policy suggests that proposals to embark upon large-scale public-works projects and to grant tax reductions should be approached cautiously. If the decline in business activity should show no signs of moderating, and if final demand for goods and services appears to be weakening significantly, Congress should, in my opinion, give consideration to additional fiscal actions. Under such circumstances, emphasis should be placed on policies and actions that can be quickly reversed should the situation change rapidly.

SUPPLEMENT NO. 9—VIEWS ON THE EFFECTS OF DEBT MANAGEMENT
ON THE ECONOMY

(Pertaining to pp. 73-76 of the joint reply)

The joint reply describes three approaches to the problem of debt management. The following remarks are offered as a supplement to these views, and relate particularly to question 5, namely: "What effect does the management of the current public debt have upon the national credit structure and the economy of the United States?" As is emphasized in the joint reply, several practical difficulties seriously complicate the implementation of debt-management policies in accordance with some generally accepted principles. Nevertheless, further comment on these principles may be appropriate.

The economic effects of debt-management policies stem largely from the relationships between debt management and (1) the money supply, (2) the liquidity of the economy, and (3) the supply of long-term funds available for private investment. Since each of these points has important implications for economic stability, debt management long has been considered as an important tool of economic stabilization.

With respect to both the maturities and the method of payment involved in cash offerings and refundings, debt management decisions affect significantly the placement of debt as between bank and non-bank holders. Sales of Government securities to nonbank investors divert purchasing power from the private sector of the economy to the Federal Government without producing expansion in the money supply. Investment expansion by commercial banks, however, involves the process of deposit creation, producing an expansive influence on the total money supply. The source of funds which is tapped in financing Government deficits is, consequently, of strategic importance

in directing debt management policy toward economic stabilization. Financing Government deficits by sales of securities which appeal to commercial banks—primarily short- and intermediate-term issues—may, during periods of recession, serve the interest of economic stabilization by inducing expansion of the money supply or by offsetting contractive influences originating in a decline in private credit. On the other hand, resort to bank credit for the financing of Government deficits during periods of inflationary pressures tends to add to these pressures by contributing to growth in total bank credit and complicating the stabilization efforts of monetary authorities. Commercial bank participation in Treasury offerings is influenced, of course, not only by the relative attractiveness of the new instruments as bank investments but also by bank reserve positions. For this reason, it is important that monetary and debt management policies be directed toward the same goals.

Because of the difference in economic effects between financing deficits with bank credit, on the one hand, and nonbank credit, on the other, there exists a widely held preference for bank financing of Government deficits during deflationary periods and for nonbank credit to be tapped during periods of inflationary pressures. The issuance of securities which appeal primarily to nonbank investors—primarily longer-term instruments—during periods of accelerated economic growth and inflationary pressures serves not only to prevent the monetization of these debt instruments but also to divert funds from private expansion projects, which contribute to the inflationary movement. Conversely, bank financing of deficit spending during recessionary movement serves not only to sustain the money supply but also avoids Treasury competition in the market for long-term funds which are available for private spending programs. It should be recognized, of course, that under ideal circumstances, the problem of financing deficits during inflationary periods would not exist.

Irrespective of whether the Federal Government is operating with a surplus or deficit, the Treasury periodically is confronted with the problem of refunding maturing instruments, and changes in the ownership and structure of the debt as a result of refinancing operations have important economic implications. In particular, a great deal of significance attaches to refunding operations which effect a shift in ownership (as between banks and nonbank investors) of the outstanding public debt. Refunding operations which feature the liquidation of bank-held debt with the proceeds from issues designed to attract nonbank holders serve to exert a contractive influence upon the money supply and reduce the availability of long-term funds for private investment. Thus, such refunding operations are associated with anti-inflationary debt management programs. Conversely, the liquidation of debt held by nonbank investors with the proceeds of securities made attractive to commercial banks produce an expansive influence upon the money supply and increase the availability of funds to private borrowers. Because of this effect, such refunding operations are consistent with antideflationary debt management programs.

In connection with shifts in ownership of the public debt, it may be noted that monetary policy also may be instrumental in effecting a transfer of public debt from the banking system to nonbank holders, or vice versa. During periods of credit ease and depressed private

credit demands, for example, additions to the supply of bank reserves provide both the inducement and the facility for expansion of bank investments. Conversely, credit restraint during a period of heavy credit demands in the private sector of the economy may necessitate bank liquidation of Government securities to accommodate loan requests. In each case there occurs a shift in the ownership of public debt as between bank and nonbank holders. To the extent that the Treasury can respect these shifts in setting the maturities on new offerings, the administration of monetary policy is facilitated and its effectiveness is enhanced.

Because of the prime economic importance of Government securities as instruments of liquidity, changes in the volume of shorter-term instruments have a direct influence upon the economy's liquidity position. A shortening of the average maturity of the public debt, and particularly a significant increase in the volume of shorter-term instruments, serves to increase the liquidity of business institutions, particularly financial institutions, and contributes to an environment conducive to private credit expansion. For this reason, concentration of offerings in the short end of the market generally is regarded as consistent with the objectives of economic policy during a recessionary movement. It should be recognized, however, that the creation of excessive liquidity during a period of credit ease may serve to delay the effectiveness of credit restraint, should the subsequent economic recovery require its application. Debt management policies which serve to lengthen the public debt, and particularly to reduce the supply of short-term credit instruments, operate to reduce liquidity and to restrain private credit expansion.

As in the case of managing Government deficits, the disposition of surpluses may have an important influence upon the money supply and the availability of funds for private investment projects. Utilization of a surplus to retire bank-held debt produces a contractive influence upon the money supply and facilitates the implementation of monetary restraint, while Government surpluses which are used to retire longer-term debt held outside the banking system release funds to the market for private investment.

In addition to the various points discussed above, management of the public debt, by influencing the demand for funds at various points along the maturity range and by influencing the supply of debt instruments at each of these points, may also have effects upon the structure of interest rates. This effect, of course, is an inevitable consequence of the volume of the public debt and the strategic importance of Government securities as debt instruments. In addition to the influence which debt management may exert upon the structure of market rates of interest, the fact that the Treasury appears alternately on both the supply side (in the case of Government surpluses) and the demand side (in the case of deficits) in credit markets indicates that the budgetary position of the Federal Government is a factor determining the absolute level of rates.

SUPPLEMENT NO. 10—SOME VIEWS ON THE EFFECTIVENESS OF MONETARY POLICY DURING A RECESSION

(Pertaining to pp. 89-90 of the joint reply)

The portion of the joint reply relating to the role of monetary policy in a business recession, by placing its emphasis on extreme conditions such as those that prevailed during the great depression, seems to me to understate the potential stimulative effects of monetary policy during a business decline. Granted that monetary policy alone cannot be expected to achieve recovery from a depression in which financial assets have become frozen and deep pessimism prevails, the importance of monetary policy in creating an atmosphere conducive to recovery should not be underestimated. Furthermore, low interest rates and ready availability of credit are essential to such recovery.

In addition, the fact that business and consumer demand for bank loans may be sharply reduced or even nonexistent during such a period does not mean that monetary expansion, as manifested in growth of bank demand deposits, will not occur. Whether or not the Treasury is financing deficits through the banking system, commercial banks, with ample reserves made available through monetary policy, will aggressively seek existing debt instruments—particularly Government securities—in order to bolster earning positions. To the extent such securities are purchased in the market from nonbank holders, demand deposits will expand, the liquidity of the economy will increase, and the growing money supply and liquidity will support the willingness and ability of businesses and consumers to spend. The impact of this type of action was clearly demonstrated in the recession of 1953-54, when the decline in interest rates and the marked increase in availability of credit provided a financial basis for the boom in residential construction and consumer durables.

FEDERAL RESERVE BANK OF SAN FRANCISCO,
San Francisco, Calif., April 11, 1958.

HON. HARRY F. BYRD,
*Chairman, Committee on Finance,
United States Senate, Washington, D. C.*

DEAR SENATOR BYRD: This letter responds to yours of February 17, 1958, enclosing a list of questions which have been used as a guide in preparing this reply. On previous occasions, when inquiries were received from committees of Congress on questions relating to financial or other aspects of our economy, it was found to be constructive to have the responses prepared on a joint basis, particularly in those areas where there was unanimity of thinking on the part of all 12 Federal Reserve banks, with such supplemental comments as each or any of them deemed it necessary to make. In the case of your inquiry, because the general questions lend themselves to such a joint

response, there has been prepared a series of statements which cover in a general, as well as in a specific manner, the points of inquiry raised. A copy of those statements is enclosed. The observations on debt management, at pages 73 to 76, should have further study and consideration before the use of debt management as a counter-cyclical policy by the Treasury can be dismissed.

At the risk of some duplication of material in the joint response, there follow some comments on the general functioning of monetary policy, with some reference to fiscal policy, and also brief comment on the problem of recession.

Basically, it is the nature of our free enterprise economic system which determines the objectives of monetary policy. This system has had a fairly rapid rate of growth and a high degree of efficiency in its operation, but has also had occasional, and at times even violent, fluctuations in economic activity and prices. These alternations of inflationary and deflationary periods, or of booms and depressions, are wasteful, unsettling, and dangerous to the continued existence of our traditional economic and political system. One of the primary objectives of economic policy in general, and of monetary policy in particular, is to minimize such cyclical fluctuations within the framework of an enterprise economy, with continued reliance, in large measure, upon market processes.

In a free enterprise economy, the levels of production, employment, and prices are determined primarily, given the economy's productive resources at the time, by the amount of money spent on all goods and services. General fluctuations of economic activity result from sharp swings in the aggregate demand for goods and services—that is, in total spending. Changes in business spending on plant and equipment or on goods for inventory, and accompanying shifts in public sentiment and consumer purchases, are among the factors contributing to such swings. Shifts in Government spending policies and foreign investment also affect the total volume of spending and, hence, general business activity.

To combat the tendency for private spending to go through wide, erratic swings, the Federal Government and the Federal Reserve System attempt to induce offsetting changes in those portions of total spending which are most subject to their influence. Monetary policies affect that part of total spending which is done out of borrowed funds. Fiscal policies increase the total volume of spending through the direct expenditures of the Government and decrease it through taxes and borrowing, which curtail the spending power of individuals and firms. The success of monetary and fiscal measures depends upon whether sufficient influence can be brought to bear upon certain areas of spending.

Monetary policy operates through measures which exert control on the supply of bank credit. The Federal Reserve System is able to regulate, through open market operations and the discount rate, the volume and cost of reserves available to its member banks. It can also regulate, within limits set by law, the maximum amount of deposits that can be held against any given volume of bank reserves. Since changes in the amount of deposits arise primarily from changes in the volume of loans and investments of banks, the System's control over the cost and availability of bank reserves exercises considerable influence over the amount of bank credit extended. Thus

the money supply, or the total amount of purchasing power in the hands of the public, can be influenced upward or downward through the application of monetary controls by the Federal Reserve System. At the same time, it should be noted that, although changes in interest rates and asset values, which are influenced by monetary policy, affect the extension of nonbank credit, the System has no direct control over nonbank credit. Although extension of such credit, in contrast to bank credit, does not increase the total amount of purchasing power in the hands of the public (since the lender gives up whatever funds the borrower receives), it can increase the extent to which such purchasing power is actually employed and can therefore affect the total volume of spending. This creates some problems for the monetary authorities but not insuperable ones, since their credit control measures are taken in the light of the economic situation at any time and the latter reflects all monetary and fiscal influences.

With the supply of bank credit held within limits but the demand for it free to fluctuate in response to changes in business conditions and public sentiment, variations in interest rates are bound to occur. Monetary policy can be most effective if the public's spending and savings are responsive to changes in interest rates and the availability of credit, but the extent to which this is so in practice has been much debated and is still uncertain. Probably, spending and savings are fairly responsive if all other things remain unchanged, although even this has been questioned. But when interest rates are changing other important factors, such as public sentiment, may be changing too. Consequently, the effect of monetary policy can be submerged by the effects of other factors. For instance, a drop in interest rates at the beginning of a business recession may not be able to halt the latter if business sentiment is worsening so rapidly that businessmen become less willing to borrow and spend, even at lower interest rates. It may be said that, in general, monetary measures are likely to be less effective during severe fluctuations in business activity, when other factors are undergoing drastic changes, than they are during moderate fluctuations.

Nevertheless, prompt and vigorous use of proper monetary measures will have considerable effect even under unfavorable circumstances. There are always some potential borrowers who are not quite decided whether or not to borrow and who can be influenced favorably by changes in interest rates or in the availability of credit. There are normally other potential borrowers whose spending projects are postponable within limits (for example, home buyers or business firms planning capital improvements), who, because they take a long-run view of economic trends, try to do their borrowing at low interest rates. These spending units may not be moved to action immediately by a change of interest rates, but are likely to curtail their borrowing when interest rates rise much above the longer-run trend and to resume borrowing when the rates drop much below the longer-run trend. While it may be impossible to say how large these two groups are in any given situation, they are probably significant, if not necessarily decisive. Failure to make use of monetary measures would mean throwing away the potential contributions to economic stability which changes in the spending of these groups are capable of making.

The effectiveness of monetary policy at any time may depend on the vigorousness with which it is employed, not only at that time,

but also in preceding periods. An easing of credit restrictions will stimulate spending more effectively if there exists a backlog of spending projects which had previously been postponed because of credit restrictions.

What has been said applies to general monetary measures—those which affect the overall volume of credit, permitting the free forces of the market to allocate this credit to particular industries and uses. This type of monetary policy is more appropriate to a free enterprise economy than specific measures which aim to govern the particular uses to which credit is put, since it avoids the necessity for having an elaborate mechanism of direct controls.

When the public's urge to invest and to consume is very strong, as in an extreme boom, general credit restrictions can limit it somewhat but probably not enough to prevent some inflation. When the fear of spending is very strong, credit ease can induce some persons to spend more but probably not enough to maintain full employment. (The latter of these two types of situation is generally the more difficult, since credit cannot be forced upon unwilling borrowers but generally it can be made more difficult to obtain by those who want it if it is made scarce or costly enough.) However, the fact that monetary policy may not be completely successful in the face of major changes in business activity does not prove that it is completely unsuccessful. To argue this, as some critics have done, is like arguing that antibiotics are a failure if they keep the patient alive but do not immediately bring his temperature down to normal. No one believes that monetary measures alone can completely prevent all economic fluctuations. Their function is simply to restrain such fluctuations as much as possible.

Because monetary measures have only a limited influence in extreme situations it is necessary that they be coordinated with the proper fiscal and other economic measures. When monetary and fiscal measures pull in the same direction they are complementary rather than competing, and their effects are cumulative. There is no justification, therefore, for placing complete reliance on either type of policy, as has sometimes been advocated, and ignoring the other. Proper use of monetary and fiscal measures also requires that the relative emphasis between them and the precise nature of the actions taken be carefully adapted to the particular circumstances of each situation, since different measures will affect the various sectors of the economy differently.

As respects the current recession, in an economy such as that under which we operate, fluctuations in general business conditions, in production, and in employment are bound to occur. In the postwar period we have been climbing rapidly to higher peaks, with only slight pauses. In the present situation, if industry and Government can accelerate already planned and necessary expenditures, if consumers can be encouraged to spend for their necessities and desires, an increase in activity can be expected which would help correct the present problem of deterioration of our economic climate. Since economic forecasting is still quite imperfect, it would be unfortunate if we were pressed into action not closely related to the extent of the present decline. Thus, if taxes are to be reduced, we should have some understanding in advance of whether spending or saving would be increased and the degree of increase in each. Similarly, the effects

of a public works program should be known, at least approximately, in advance of its approval. If it is not already fully developed in its planning stages, would it be effective in the very near future, or not until a time when it would compete with the normal and increasing demands of private enterprise for labor and materials? Action that is not readily reversible, and the full effects of which may be felt only with considerable delay, may result only in additional inflationary pressures in the succeeding upswing. This would further complicate the problem of achieving sustainable economic growth. The very real fear of policy actions being too little and too late should not be allowed to obscure the problems that can be created by intervention that is too much too soon.

On the basis of events to date, our economy is sufficiently strong, in my view, so that needed corrections will probably develop without excessive interference by Government. We should avoid policy actions at this time that would introduce additional rigidities and delay the adjustments in prices and use of resources necessary for a resumption of overall high-level activity and growth. If, in seeking to check recession, we attempt to offset completely the effects on particular industries, areas, or occupations of changing consumer demands and the introduction of new products and methods, the result will be stagnation, not growth. Monetary and fiscal measures of an overall and impersonal nature seem to be the best means that have yet been devised for limiting general fluctuations in business activity and prices, because they involve the minimum of direct, detailed interference with the free market forces of our economy.

Even monetary and fiscal measures combined may not be completely effective in preventing economic fluctuations, because large portions of the economy are fairly insensitive to their influence and because of social and political difficulties in the way of implementing such measures vigorously. Too much should not be expected of them, lest disappointment breed rejection. However, used properly, both monetary and fiscal measures can do much to contain economic fluctuations within tolerable limits. Indeed, the mere knowledge that they will be so used will do much to curb such fluctuations by preventing the wide swings of public sentiment which are partly responsible for them.

Yours very truly,

H. N. MANGELS, *President.*

